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EEI BULLETIN

• DECEMBER 1959 •

The Problem of Government Ownership of the Electric Light and Power Business

Edwin Vennard

A Utility President Looks at Area Development

Harllee Branch, Jr.

MHD Power Generation System Studied

Soviet Group Sees U. S. Electric Power Developments

Harvey E. Bumgardner

PUBLISHED BY EDISON ELECTRIC INSTITUTE

ELECTRICAL RESEARCH STATISTICS
THE ELECTRIC LIGHT AND POWER INDUSTRY

Current Statistical Data Covering 100 Per Cent of Industry

(Includes Investor-Owned Companies, Cooperatives, and Government-Owned Utilities)

July 1958-1959

SOURCE AND DISPOSAL OF ENERGY—MONTH OF JULY

	1959	1958	%
NET GENERATION* (Kwhrs in Thousands)			
By Fuel Burning Plants	50,212,372	43,383,175	+15.7
By Water Power Plants	11,482,489	11,608,222	− 1.1
Total Generation	**61,694,861**	**54,991,397**	**+12.2**
ADD—Net Imports Over International Boundaries	300,310	212,519	+41.3
Less—Company Use	173,885	153,973	+12.9
Less—Energy Used by Producer	2,037,507	1,305,427	+56.1
Net Energy for Distribution	**59,783,779**	**53,744,516**	**+11.2**
Lost and Unaccounted for	7,122,477	7,098,901	+ 0.3
Sales to Ultimate Customers	**52,661,302**	**46,645,615**	**+12.9**

CLASSIFICATION OF SALES

NUMBER OF CUSTOMERS—As of July 31st			
Residential or Domestic	48,373,511	47,230,646	+ 2.4
Rural (Distinct Rural Rates)	1,662,392	1,656,955	+ 0.3
Commercial or Industrial:			
Small Light and Power	6,366,751	6,270,167	+ 1.5
Large Light and Power	322,842	312,940	+ 3.2
Other Customers	192,747	186,540	+ 3.3
Total Ultimate Customers	**56,918,243**	**55,657,248**	**+ 2.3**
KILOWATTHOUR SALES—During Month of July (Kwhrs in Thousands)			
Residential or Domestic	13,680,816	12,415,967	+10.2
Rural (Distinct Rural Rates)	1,408,081	1,244,169	+13.2
Commercial or Industrial:			
Small Light and Power	10,113,966	8,915,173	+13.4
Large Light and Power	25,531,284	22,260,580	+14.7
Street and Highway Lighting	415,100	388,896	+ 6.7
Other Public Authorities	1,170,413	1,073,763	+ 9.0
Railroads and Railways	276,754	284,388	− 2.7
Interdepartmental	64,888	62,679	+ 3.5
Total to Ultimate Customers	**52,661,302**	**46,645,615**	**+12.9**
Revenue from Ultimate Customers (Thousands)	**$886,209**	**$805,924**	**+10.0**

RESIDENTIAL OR DOMESTIC SERVICE

AVERAGE CUSTOMER DATA—for 12 months ended July 31, 1959			
Kilowatthours per Customer	3,470	3,300	+ 5.2
Average Annual Bill	$87.44	$83.49	+ 4.7
Revenue per Kilowatthour	2.52¢	2.53¢	− 0.4

* By courtesy of the Federal Power Commission.

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THE EDISON ELECTRIC INSTITUTE BULLETIN is published monthly, except bi-monthly in July and August, by the Edison Electric Institute, an association of electric light and power companies in the United States and its territorial possessions. Its affiliate members consist of private electric utilities in North, Central and South America and contiguous islands in the Western Hemisphere.

The objectives of the Edison Electric Institute are:

The advancement in the public service of the art of producing, transmitting, and distributing electricity and the promotion of scientific research in such field.

The ascertainment and making available to the members and the public of factual information, data, and statistics relating to the electric industry.

To aid its operating company members to generate and sell electric energy at the lowest possible price commensurate with safe and adequate service, giving due regard to the interests of consumer, investor, and employee.

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EEI BULLETIN

December, 1959

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CONVENTIONS AND MEETINGS

1959

DECEMBER

2- 3 EEI Street & Highway Lighting Committee, Cleveland, Ohio

3- 4 EEI Industrial Power & Heating Group, Coronado Hotel, St. Louis, Mo.

7- 8 EEI-AGA Depreciation Accounting Committees, Internal Auditing Committees, and Plant Accounting and Property Records Committees, Sheraton-Charles Hotel, New Orleans, La.

8 EEI Investor Relations Committee, Roosevelt Hotel, New York, N. Y.

8 PIP Steering Committee, Waldorf-Astoria, New York, N. Y.

8-10 AIEE-NEMA Second National Conference on Application of Electrical Insulation, The Shoreham Hotel, Washington, D. C.

10-11 EEI Accounting Employee Relations Committee; EEI-AGA Accounting Division Customer Relations Committees, Customer Accounting Committees, Customer Collections Committees, and Methods and Procedures Committees (ADS), Roosevelt Hotel, New Orleans, La.

1960

JANUARY

11-12 EEI Electric Space Heating and Air Conditioning Committee, Washington, D. C.

20-22 EEI-AGA Taxation Accounting Committees, Sheraton-Jefferson Hotel, St. Louis, Mo.

21-22 EEI Transmission & Distribution Committee, Hotel Soreno, St. Petersburg, Fla.

21-26 PEA Systems Operation Committee, Philadelphia, Pa.

22 Oklahoma Utilities Association Accounting Section Meeting, Tulsa, Okla.

25-27 EEI-AGA Taxation Accounting Committees, Sheraton-Jefferson Hotel, St. Louis, Mo.

FEBRUARY

1- 3 EEI Prime Movers Committee, Sheraton-Cleveland Hotel, Cleveland, Ohio

1- 4 Fourth National Industrial Electrification Heating Conference, Netherland Hilton Hotel, Cincinnati, Ohio

1- 5 ASTM Committee Week, Hotel Sherman, Chicago, Ill.

8- 9 Missouri Valley Electric Association Industrial & Commercial Sales Conference, President Hotel, Kansas City, Mo.

15-16 EEI-AGA Accounting Conference Final Working Meeting, Sheraton-Cadillac Hotel, Detroit, Mich.

15-16 EEI Electrical System & Equipment Committee, Bellevue-Stratford Hotel, Philadelphia, Pa.

18-19 EEI Commercial Cooking and Water Heating Committee, Atlanta, Ga.

29-
Mar. 1 Pacific Coast Electrical Association Business Development Conference, Lafayette Hotel, Long Beach, Calif.

MARCH

21-23 Southeastern Electric Exchange Annual Conference, Boca Raton Hotel and Club, Boca Raton, Fla.

23 Oklahoma Utilities Association Accounting Section Meeting, Biltmore Hotel, Oklahoma City, Okla.

24-25 Oklahoma Utilities Association Convention, Biltmore Hotel, Oklahoma City, Okla.

28-29 Pacific Coast Electrical Association Engineering and Operating Conference, San Francisco, Calif.

APRIL

3- 6 EEI Sales Conference, Edgewater Beach Hotel, Chicago, Ill.

3- 8 AIEE Engineers Joint Council Nuclear Congress, New York, N. Y.

7- 8 Southeastern Electric Exchange Engineering & Operation Section Conference, Roosevelt Hotel, New Orleans, La.

11-12 Pacific Coast Electrical Association Administrative Services Conference, Huntington-Sheraton Hotel, Pasadena, Calif.

20-22 Missouri Valley Electric Association Engineering Conference, President Hotel, Kansas City, Mo.

25-27 EEI-AGA National Conference of Electric & Gas Utility Accountants, Hotels Commodore and Roosevelt, New York, N. Y.

27-29 NELPA Engineering and Operation Section Joint with Personnel and Safety Section, Hotel Florence, Missoula, Mont.

28-29 PEA Systems Operation Committee, Bedford Springs Hotel, Bedford, Pa.

MAY

2- 4 EEI Purchasing & Stores Committee Annual Meeting, The Warwick, Philadelphia, Pa.

10-12 AIEE Farm Electrification Conference, Sheraton-Fontenell Hotel, Omaha, Nebr.

16-18 Pacific Coast Electrical Association Annual Convention, Stardust Hotel, Las Vegas, Nev.

23-25 NELPA Business Development Section, Chinook Hotel, Yakima, Wash.

JUNE

6- 8 EEI Convention, Atlantic City, N. J.

15-17 NELPA Accounting & Business Practice Section, Benson Hotel, Portland, Ore.

26-
July 1 ASTM 63rd Annual Meeting and Apparatus Exhibit, Chalfonte-Haddon Hall, Atlantic City, N. J.

SEPTEMBER

7- 9 NELPA 53rd Annual Meeting, Glacier Park Lodge, Glacier, Mont.

15-16 EEI-AGA Accounting Division and Section Organization Meetings, The Pittsburgh Hilton, Pittsburgh, Pa.

23 Oklahoma Utilities Association Gas Division Meeting, Biltmore Hotel, Oklahoma City, Okla.

28-30 Indiana Electric Association 51st Annual Convention, French Lick-Sheraton Hotel, French Lick, Ind.

OCTOBER

10-12 AGA Annual Convention, Atlantic City, N. J.

20-21 PIP Second National Youth Conference on the Atom, Museum of Science & Industry, Chicago, Ill.

NOVEMBER

30-
Dec. 2 EEI-AGA Electronics Seminar, St. Francis Hotel, San Francisco, Calif.

The Problem of Government Ownership

of the
Electric Light and Power Business
in the United States

By Edwin Vennard*

Vice President and Managing Director
Edison Electric Institute

THE problem of government ownership of the power business has been with us for a long time. It is a challenging one. It has to do with the question of whether this business, or any part of it, should be financed by Federal government expenditures and owned or controlled by the government, or should be financed by individuals or groups who are free to invest or not to invest in the business and owned and controlled by the investors operating under government regulation.

It is important that we in the power business, and especially those of us who are in supervisory positions, understand this problem well.

Part of a Bigger Problem

This power issue has added significance because it is part of a much bigger problem concerning the kind of society or the kind of government under which Americans choose to live. Government ownership of electric power means government ownership of an important segment of the whole economy. Would government ownership in the power business lead to government ownership of railroads, and coal and oil and steel?

Under the Russian system, government owns and operates all business and all people work for the government. The Socialist movement in other countries, such as in England, has always encompassed nationalization or government ownership of the electric business. Although the Communist and Socialist movements in this country have been relatively insignificant, as far as party operation is concerned, government ownership of electric power has always been part of those movements.

This is not to say that all advocates of and believers in government ownership of power in America are either Communists or Socialists. On the contrary, most of these people are not. Nevertheless, we need to consider the effect of this advocacy, regardless of why it is advanced, because it may contribute to socialization and possible loss of freedom.

Let us also remember that all government spending is not bad. There are many fields in which government spending is good and in keeping with the principles of our American system.

The question before us is this: Is government spending for the building or financing of power facilities necessary and good and in keeping with our American principles? Does it result in the greatest good for the greatest number of people? If it does not, why is it continued, especially at a time when inflation threatens the value of our currency and when excessive and unnecessary spending by the Federal government is a factor contributing to inflation?

Let us analyze the problem:

- What did the advocates of government ownership say they would do?
- How did they go about doing it?
- What have they accomplished so far?
- What has been done to stop the trend and how effective has it been?
- Why do we Americans let our Federal government continue to spend our money to build and finance power facilities?
- What can you and I now do?

The concept of government operation of the electric business has been championed by a number of organizations and individuals over the years. The Socialist Party platform of 1920 called for government ownership of the power business and all other industries operating on a national scale.

TVA—a 'Flower Amongst Weeds'?

Norman Thomas, the great Socialist leader in America, said, "The TVA is the only genuinely Socialist act (in the New Deal)—a flower in the midst of weeds."**

The old Public Ownership League of America was closely associated with the Socialist movement.

For years its guiding spirit was its secretary, Carl D. Thompson. He had a long and interesting connection with the Socialist Party. He was on the National Committee of the Socialist Party in 1905. In 1908 his name was placed in nomination as candidate for President of the United States at the Socialist convention by Victor Berger. From 1912 to 1916 he was director of information of the Socialist Party, and managed its information bureau. In 1916 he managed the national Socialist campaign. He was employed by the Bonneville Power Administration, Department of Interior, from 1938 to 1947.

In 1923 the League first announced and for years later actively promoted government ownership of the power

* An address before the Supervisors and Specialists Dinner Meeting, The Cleveland Electric Illuminating Co., Cleveland, Ohio, Oct. 27, 1959.

***Chattanooga, Tenn., Times*, Feb. 15, 1934.

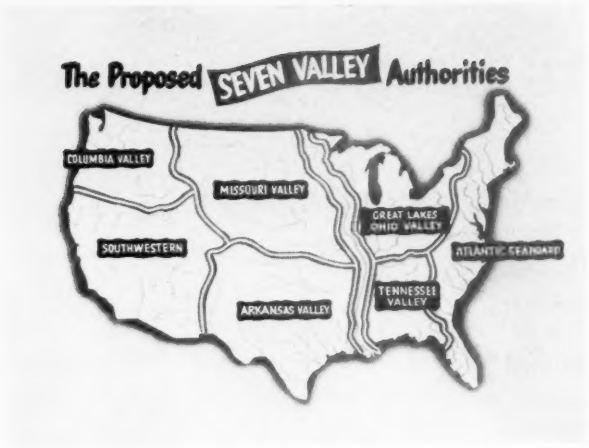


Figure 1

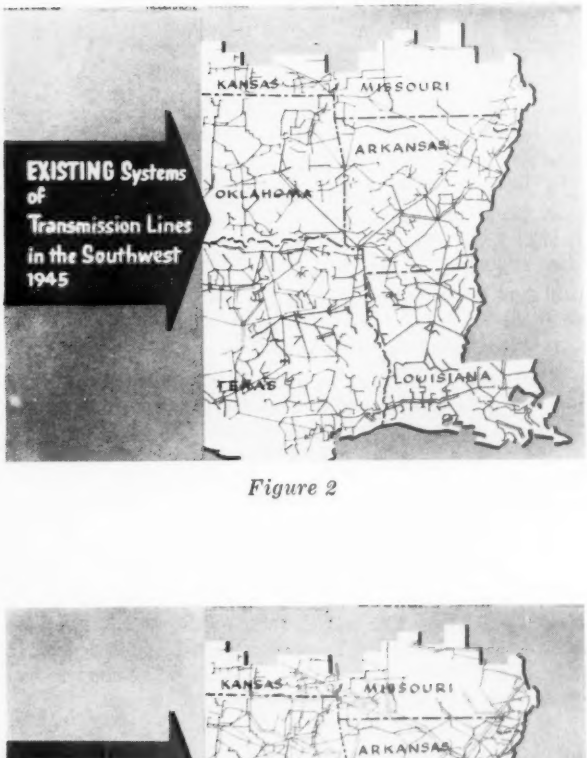


Figure 2

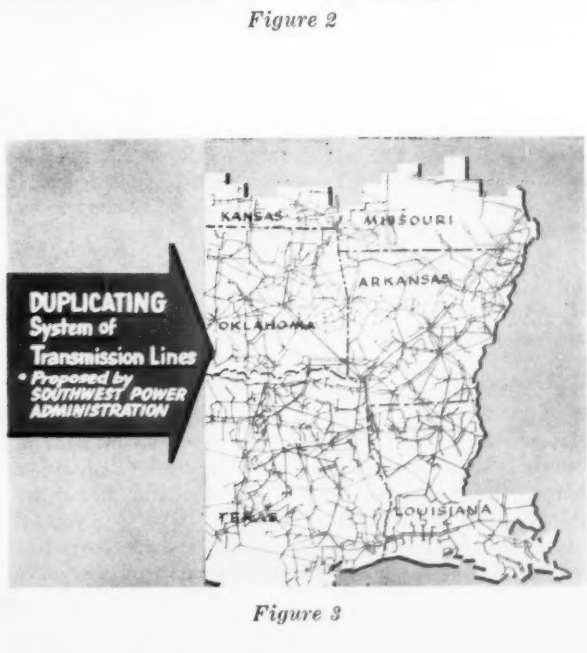


Figure 3

business by tying together local municipal systems and by working through the river development program of the Federal government.

Norris Bill Died

In 1924 the Public Ownership League advocated and had Senator Norris present a bill "providing for a nation-wide publicly owned super power system . . . ." It was a bill to put government in charge of almost all the key industries in the country. However, it got almost no support in Congress and was allowed to die. In 1926 Senator Norris introduced a bill to create a power authority in the Tennessee Valley. In this bill the emphasis was on power and not flood control or navigation. The bill was defeated. A similar bill was introduced and failed to pass in 1927.

During the middle twenties there was a debate going on among the advocates of socialization, one group promoting the revolution technique and the other group the technique of encroachment or gradual socialization. H. S. Raushenbush was an advocate of government ownership through encroachment. He said, "One good man with his eyes, ears and wits about him inside the department (of government) . . . can do more to perfect the technique of control over industry than a hundred men outside."*

Abolition of Profit System for Private Use

He further stated that, "Our long-time aim is the abolition of the profit system for private use. Our strategy is to make and take every opportunity to prove that it works. We must force our experts on agriculture, trusts, coal, power, subways, housing, milk, etc., to tell us correctly which the next steps are, and then take them and identify ourselves with their success."**

In 1933 the third attempt at a TVA bill succeeded. This bill made navigation and flood control the primary functions, as these were constitutional. Electric power was made incidental. Government was authorized to sell incidental power from government dams built primarily for navigation and flood control. TVA was not authorized to build steam plants nor authorized to supply all the electric power to the people of the region. Later, in a test case before the Supreme Court, TVA lawyers stated that TVA had no intention of building steam plants and in the lawyers' opinion had not the authority under the Constitution.

No Authority to Build Steam Plants

The Supreme Court has upheld the right of TVA to sell incidental power from Wilson Dam, a dam built for the constitutional function of navigation. There has been no Supreme Court decision, however, giving the Federal government the authority to build steam plants for the purpose of supplying the electricity requirements of people, nor has the Supreme Court passed upon the right of the Federal government to assume the responsibility of furnishing all of the electricity requirements for the people of any region.

* H. S. Raushenbush, *New Leader*, March 5 and 12, 1927.
** Raushenbush made the above statement in 1927. He entered the Department of the Interior in 1939; by 1941 he had become chief of the Planning Section, Power Division; he resigned as chief of the Economics and Statistics Branch of the Division of Power of the Department of the Interior on Jan. 15, 1947.

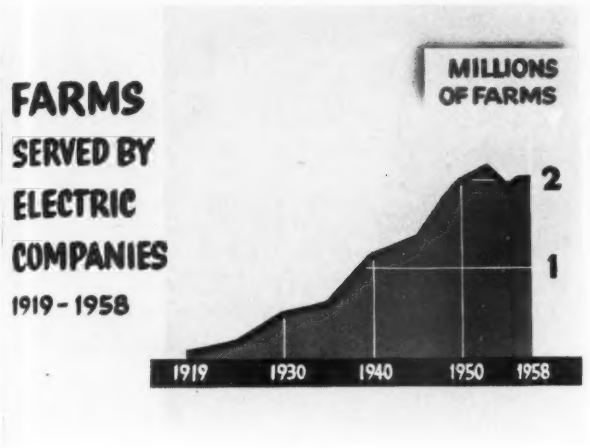


Figure 4

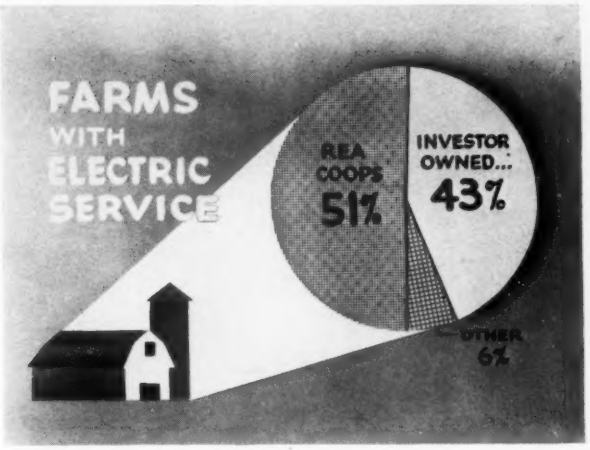


Figure 5

Today, 82 per cent of TVA's investment is in power facilities and 74 per cent of power generated by TVA is by steam plants. The present service area of TVA far exceeds the limits of the Tennessee Valley. It is supplying all the electricity requirements of the people of the area. A dangerous precedent has been set and we Americans with our eyes open and with full access to these facts have allowed it.

Various attempts have been made to create other valley authorities modelled after the TVA. One was the Arkansas Valley Authority. Another was the Missouri Valley Authority. Still another was the Columbia Valley Authority.

Eight Authorities Proposed

Bills have been introduced in Congress to establish at least eight different valley authorities.

And at various times there have been proposed bills to divide the whole country into seven valley authorities. (Fig. 1). All of these bills failed to pass Congress.

As government ownership advocates failed in these attempts, they chose another path—administrative directive. In 1943 Harold Ickes, Secretary of the Interior, created the Southwestern Power Administration (SPA) to market electric power generated at government-built dams. SPA and the Department of the Interior were to become great advocates of government operation of power. (Mr. Raushenbush was employed by the Department of the Interior from 1939 to 1947.)

Duplication Sought by SPA

In 1946, the Department of Interior, through SPA, proposed a program under which the Federal government would spend $200 million, $125 million to build a transmission system largely duplicating the existing transmission system and an additional $75 million for steam plants. Figure 2 shows the system of transmission lines existing in the Southwestern section of our country in 1945. Figure 3 shows the proposed Southwestern Power Administration transmission system superimposed on the existing system. The duplication is very evident.

It was also made very evident to American leaders and appropriate committees of Congress that this proposal appeared to be the Arkansas Valley Authority which the government had turned down. The expenditures would result in duplication and were unnecessary. The proposal failed to pass.

Government Ownership Advocates Use REA

The Rural Electrification Administration (REA), a good and necessary program, is also being used in a strange but effective way by the advocates of government ownership to put the Federal government further in the power business.

Power companies began rural electrification around the turn of the century and were making considerable progress until the setback of the great depression in the early 30's. In 1936 the Rural Electrification Administration was created for the purpose of making long-term loans at low interest rates to assist in extending electric service into rural areas not receiving central station service. Most of the money has been loaned to rural electric cooperatives. The power companies cooperate by making electricity available at wholesale or low rates.

Rural Loads Grow

The rate of growth of rural loads after the depression was even greater than before the depression. (Fig. 4).

Today, practically all farms receive electric service. As shown in Figure 5, 51 percent are served by co-ops, 43 percent by companies, and 6 percent by others.

But the REA movement is being used as a vehicle to promote more government ownership. Generating plants and transmission lines (G&T cooperatives) are being built to supply electricity to cooperatives where companies are willing and able to furnish adequate service at low prices. The average wholesale rate upon the sale of power from companies to cooperatives is 0.8 cents a kilowatt-hour. The average wholesale rate of all G&T's is one cent a kilowatt-hour.

Today, 54.5 per cent of the electricity used by cooperatives is purchased from companies.

Figure 6

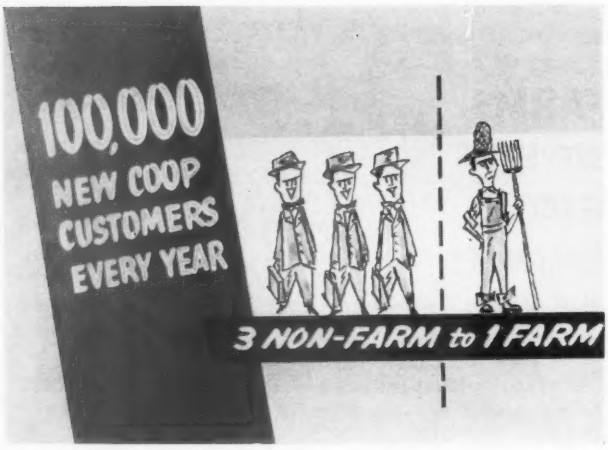


Figure 7

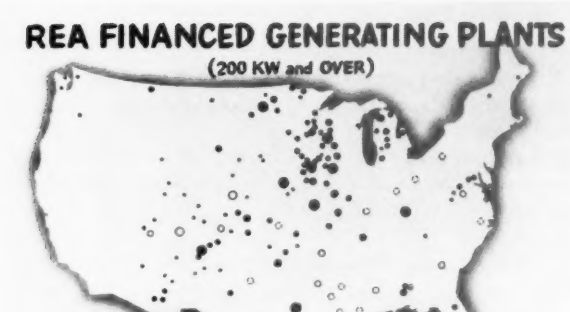


Figure 8

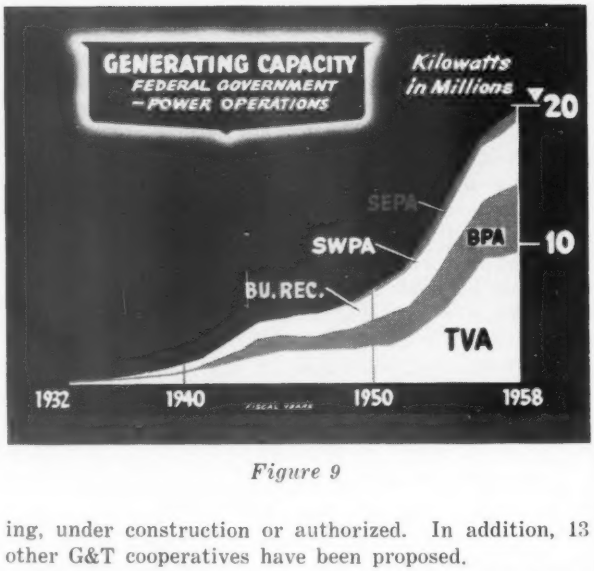


Figure 9

Figure 6 shows the steady increase in the percentage of REA loans spent on G&T facilities.*

Serving farms is no longer the sole business of the co-ops. Some cooperatives are serving or endeavoring to serve large industries which would normally purchase electricity from the companies.

Competition Is Not the Purpose

It was never intended that the government would lend 2 percent money to cooperatives, and excuse them from Federal taxes so that "below-cost" power could be sold to industry. When companies make special low rates at wholesale to cooperatives, it is not intended that the cooperatives should use this low-cost power to take away industrial customers of the company.

Other cooperatives are endeavoring to serve communities which normally purchase electricity from central stations.

Non-farm customers now use about half of the energy distributed by the co-ops. Among new co-op customers, non-farm users outnumber farmers nearly three to one. (Fig. 7).

There are 34 G&T cooperatives with facilities operating, under construction or authorized. In addition, 13 other G&T cooperatives have been proposed.

The many REA-financed generating plants are shown in Figure 8.

At present Federal power generating capacity amounts to 21.6 million kilowatts and represents government spending of $5½ billion. Plans call for spending $10 billion more in the future. Since 1930 the capacity of the investor-owned segment of the industry has increased about 2½ times. During the same period Federal capacity has increased 89 times. (Fig. 9.).

Figure 10 shows the percentage growth in all government ownership since 1932.

More than 20 years ago many power company people directly affected by this problem began some exhaustive analyses of it. They began to realize that most of these believers in government ownership were not Communists or Socialists, although the movement was being used as a means of furthering the Socialist ends. They realized that the problem had to do with people, their attitudes, their desires, their beliefs, their knowledge of facts. Scientific analyses were made of public opinion and public knowledge. These showed that the problem could be broken down into two parts, functional public and employee activities and informational relations.

* This chart was developed from statement of David Hamil, REA Administrator, before Senate Subcommittee on Agricultural Credit and Rural Electrification, March 5, 1959.

Functional Public and Employee Activities: All company functions were examined and an effort was made to do less of those things which were distasteful to the public and do more of those things which were pleasing. Similarly, companies analyzed their employee relations and strove in dealing with employees to do those things that would make employees like to work for the company.

Informational Relations: Analyses disclosed that a substantial percentage of our customers and employees were not informed about the power business and especially about facts relating to the government power issue. Furthermore, the research indicated that there was a strong correlation between knowledge of facts and attitudes on the government ownership issue. People uninformed as to facts tended to favor government ownership. Informed people opposed government ownership

Informed Change Attitude

Then began experiments and research to determine whether uninformed people, when informed, would change their attitude on the issue. In case after case, results were positive.

For example, when people expressed themselves as being in favor of government ownership, the interviewers simply asked why. Their answers were then tabulated. "To get lower rates" led the list.

Another question was, "Has the company reduced your rate in the past 10 or 15 years (this was in the late 1930's)?" Some 60 percent said they had not or that they had risen. Twenty-seven percent had no opinion. The fact was that the average rate was about half of what it was 10 or 15 years before.

This was called an area of ignorance. It was corrected by reciting the fact. As this area of ignorance was corrected the belief in government ownership declined. By a similar process other areas of ignorance were discovered and the corrective facts told through the use of all of the media of communication, through employee meetings, books and literature, local and national advertising.

In 1943 some 52 percent of the American people expressed themselves as being in favor of some kind of government ownership.

In 1957 only 9 percent were in favor of Federal government ownership.

These surveys continually disclosed an interesting and disconcerting situation. Twenty-four percent of the people who are being served by power companies think they are being served by some kind of government organization. In cases where the name of the company contains the name of a city in which service is rendered, many people think they are served by a city-owned plant. Where the name of the company contains the name of the state, some people tend to believe they are being served by a state-owned power project.

A substantial number of these 24 percent who think they are served by a government agency, either city, state or Federal, have expressed their approval of that method of operation. Apparently they are satisfied with the service they are receiving from investor-owned companies while believing this service is being provided by a government agency.

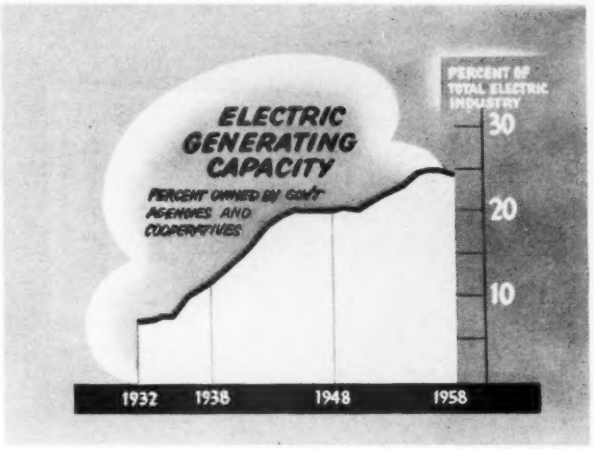


Figure 10

How do we evaluate their opinion on this issue?

Let us assume that we informed these 24 percent of our customers that they are being served by a company and then assume that they express themselves on the government power issue, as do all others. In that case, we would raise the percentage of people in our favor from 56 percent to 74 percent, a greater increase than we have accomplished in the past 20 years.

We have a lesson to learn here. We have had knowledge of this bit of ignorance for years and yet it persists. Who besides ourselves can be counted upon to correct it? Is it because of our complacency that we have failed to do so? If so, possibly we have learned our lesson and will go about the business of correcting it.

This research in the field of public attitude and knowledge further disclosed that the government power issue was inseparable from the bigger issue having to do with our over-all form of government—with the kind of society under which we live. To what extent are the American people in favor of the planned economy, the welfare state, the collectivist ideology, the whole matter of government operation of the economy, the guaranteeing of jobs to all people, the guarantee of wage levels, the philosophy of "government take care of me"?

What Americans Wanted

This could be measured and it was. The results disclosed that a substantial percentage of Americans favored the same kind of a system employed in Socialist countries. These Americans were not Socialists. Certainly they were not Communists and yet they believed in substantially the same things in which the Socialists and Communists believed.

In an attempt to explain this, people were asked a number of questions about the American economic system. As might be expected, some were informed and some were uninformed. The researchers separated the responses into two groups, the informed in one group and the uninformed in the other.

This research shows there is a definite correlation between the knowledge of the people and the type of government they prefer. The vast majority of those who

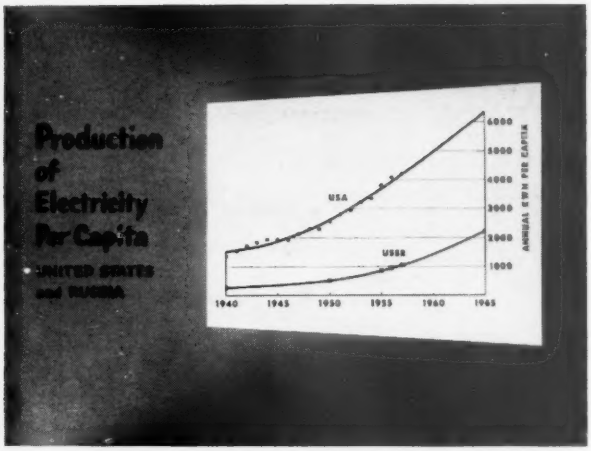


Figure 11

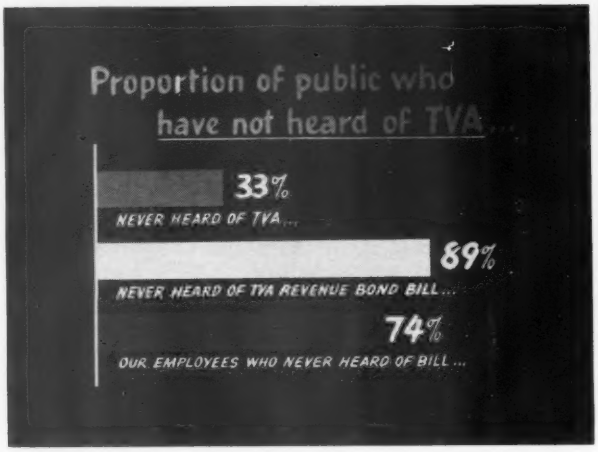

Proportion of public who have not heard of TVA...
33%
NEVER HEARD OF TVA...
89%
NEVER HEARD OF TVA REVENUE BOND BILL...
74%
OUR EMPLOYEES WHO NEVER HEARD OF BILL...

Figure 12

are informed about the American economic system favor free enterprise, while those who are uninformed tend toward collectivism.

Considerable research then was carried on in the field of informing people as to the facts about the American economy. Measurements were made before and after. In every case it was found that when people are informed as to the facts, they tend to favor the American system of individual freedom as opposed to the Socialist ideology. Again, the solution of our problem seems to be, in the broader sense, one of informing people.

If most of the American people are clearly opposed to large government spending for government ownership of the power business, why does this continue? Let us look at some possible explanations.

Is there a need for government spending to provide adequate power capacity? I should think not.

No Power Shortage in Peace or War

In America the power capacity has always remained above the customers' demands for power. Seventy-six percent of the capacity is financed in the free market, which means that each individual investor is free to own or not to own a share in the business. Today the investor-owned segment of the industry operating under this system has about 26 percent reserve capacity. There has never been a power shortage in war or peace. There is nothing to indicate that this traditional American method of financing a business enterprise will not work in the future. Almost every day companies are obtaining additional capital in the free market.

Are government ownership advocates spending taxpayers' money on government power for the purpose of maintaining world leadership in power?

The answer to this is also "no."

America has more power capacity than the next six countries combined. We have three times the power capacity of the next leading country, Soviet Russia. The power companies have on order and under construction over the next four years 32.2 million kilowatts of new capacity. This is more than half of Russia's present total capacity. Is Russia going to pass us in electric power? There is nothing to indicate it. Russia plans to have 110-112 million kw in 1965. At present trends, America will have 245 million kw at that time.

Figure 11 shows the kilowatt-hours per capita for the two countries, actual through 1957 and projected through 1965.

Is government ownership needed to regulate the price? Has government regulation failed? The answers are "no."

The average price of household electricity is 29 percent of what it was in 1913, whereas the cost of living is up 295 percent.

Do advocates of government power believe they have a mandate from the people to foster government ownership of power facilities? This can hardly be so in view of surveys of public attitude. There is a vocal minority pressing for government ownership, but there is no evidence that they speak for any substantial segment of the electorate. Accurate surveys made in the Northwest showed that "public power" was fifth on a list of six issues that the people thought were important in a recent Congressional election.

Government ownership continues because:

- There is discrimination in favor of government power.
- Vocal and active minorities are taking advantage of these discriminations, at the taxpayers' expense.
- We have failed so far to reach enough people with the facts.

To understand this, we need to remind ourselves of a few fundamental economic facts about the power business. It takes about $4.20 of investment to produce each dollar of annual gross revenue in the power business. This compares with a 65-cent investment in the manufacturing business to produce one dollar of revenue.

Because of this high investment per dollar of revenue, taxes and money costs take almost half of the gross revenue produced in the power business. These costs of doing business are included in the price of electricity just as all other costs are included in price.

Government power escapes the bulk of these costs. In financing government power projects the Federal government either furnishes the money without any in-

(*Continued on page* 417)

A Utility President Looks at Area Development

By Harllee Branch, Jr.*
President, The Southern Co.

Such Programs Needed to Sustain Sales, Meet Growing Financial Commitments and Preserve Free Enterprise System, Mr. Branch Says

IT is not an overstatement to say that sentiment for participation in area development programs on the part of utility managements is already strong and growing stronger.

The group of companies with which I am associated has been engaged in community and area development activities for many years and it has been a source of gratification to us that some of our programs (such as the Better Home Town Program of the Georgia Power Co.) have served to inspire similar programs not only in other sections of the United States but in foreign lands as well.

Pioneering Skill, Continuing Skill

We are indebted not only to those presently responsible for these programs but to former associates whose vision, enthusiasm and industrial statesmanship brought them into being. It is to the pioneering zeal of these former colleagues and to the continuing skill of their successors that our companies owe much of their present good standing with the public.

It has been my experience that those who successfully serve in the field of community and area development have a dedication and an enthusiasm, that borders on an obsession!

What is a true community and area development program? What facets of community life, what interests and what kinds of activities should it embrace? Why should an electric utility company assume responsibility for such a program? What kind of man or woman is suited to direct it? And, finally, what return may a utility company expect to receive for its expenditures and efforts in this field?

These are questions which I have frequently asked, particularly at budget time, of those in our companies who have so stoutly and persuasively advocated these programs. I will try to answer some of the questions myself and that, of course, will be quite a switch.

It seems to me that, to justify utility company sponsorship, a community or area development program must have at least the following qualities:

- First, it must be comprehensive enough to embrace all aspects of community or area life.
- Second, it must be sufficiently diversified in interest, content and purpose to excite and challenge every segment of the population.
- Third, it must be aimed at the realistic development—that is, the accentuation and more effective utilization—of the particular human and physical resources possessed by the area or community in question.

Programs which appeal to and will serve the interests of only a part of the community or area may be worthwhile and even badly needed, depending upon their tone and motivation, but they have no right to be called "community or area development programs" in the sense in which those terms are used at the Area Development Workshop. And, in my opinion, they should not be financed and conducted by public utilities whose funds are derived from the whole of the population.

This does not mean that every item or activity in a community or area development program must be universal in its appeal and benefits. On the contrary, well-rounded and useful programs will generally require years to effect and will be made up of many parts, each perhaps designed to improve the lot and increase the opportunities of a different segment of the population.

Impact of All Parts

The validity and effectiveness of such long-range programs must be measured by the combined impact of all their parts. However, if in its entirety, a program will be applicable only to farmers, or laborers, or businessmen, or lovers of sports, or devotees of the arts, or followers of particular faiths and cults—even though it may be entitled to the support of those in the community having a special interest in its limited objectives and benefits—it should *not* be sponsored and financed by a public utility company under the guise of a "community" or *area* development program.

Comprehensiveness of interest and benefits is neces-

*An address before the EEI 6th Annual Area Development Workshop, Phoenix, Ariz., Oct. 21, 1959.

sary not only to justify utility sponsorship but also to assure the success of an area development program. No matter how enthusiastic and competent its sponsors may be, such a program cannot be effective without community-wide and grassroots backing.

I have seen such programs launched with dramatic fanfares of publicity, only to fizzle out like defective rockets in their second and third stages because they did not have the sustaining thrust of widespread public support. And such support on a continuing basis is attainable only if the program is clearly designed to benefit all segments of the population and sufficiently comprehensive to embrace all aspects of community life.

Many area development programs are limited to industrial and economic promotion. While this is a desirable goal, I do not think it should be made an end in itself. An effort should be made not only to increase the industrial skills and opportunities of the people, but also to improve their cultural and spiritual capacities and their sense of civic and political responsibility.

Industrial Jungles

We need only look around us at some of the industrial jungles which have grown up in America, with their climates of crime and conflict, delinquency and decadence, to realize how industrialization without intellectual and spiritual leaven can result in community deterioration rather than community development. It is not enough to offer a man a chance to make a living; we should also be concerned with encouraging him to live as a constructive and useful member of the community.

In this connection, I am prompted to suggest that a program which is limited to industrial promotion and which expects to have its success measured only in terms of new factories, new jobs and improved per capita income, is not only unlikely to produce lasting benefits but it may actually prove self-defeating. For surely no prudent industrialist will risk his capital and his economic future in any community where churches and schools and civic enterprises have not first been able to succeed.

To be really useful and effective, a community or area development program should be aimed at utilizing the particular human and other resources possessed by a community.

Conformity is one of the major crimes of our times and it afflicts towns and cities as well as individuals. A hungry world, populated with people who have a rare talent for reproduction and multiplication, needs all sorts of goods and services and men should be encouraged to apply themselves to the activities for which nature has best equipped them. I think the word "development" means the process of making more useful and more readily available that which already exists in some form, although perhaps latent and obscured. Surely it does not mean the destruction of existing values merely for the sake of imitation.

If that is true, then it seems to me that community and area development programs should be carefully tailored to suit the human talents and aspirations and the physical resources of each community, thereby promoting the diversified productive capacities of the nation as well as preserving the sectional differences in tradition and custom which constitute such a priceless ingredient of our national life.

This does not mean that a community now predominantly agricultural should always remain so, or that the manners, fashions and commercial interests of a community should never change. It does mean that an appropriate balance should be sought between agriculture, industry and retail and wholesale trade; and that an area especially suited to provide needed food and fibre should not be artificially stimulated to cut down its forests or cover up its fertile fields with factory buildings which only fly-by-night industrial adventurers and exploiters can be bribed to occupy. More specifically, it means that development programs which may have worked well in Cleveland or Detroit or Birmingham should not, simply because they have succeeded in those places, be deemed suitable in detail for emulation in Phoenix or Columbia or Tampa.

Why should electric utility companies assume responsibility for area and community development programs? Strictly speaking, an electric utility exists to supply a specific service—to furnish a form of energy to homes, farms, offices and factories. It is not intended to be an educational or cultural society, a religious or benevolent organization, or a do-gooder establishment. Why, then, should such a company be interested in any corporate activity beyond giving good service and collecting its bills?

I think the best and simplest answer is that an electric utility can grow only as its territory grows and as standards of living and economic efficiency in its territory are improved. For some years, engineers and scientists have constantly increased the number and variety of electrical power applications, but the time will finally come when a company's load will become static unless new customers are attracted to its territory and unless those already in the territory become interested in, and financially able to afford, newer and more extensive uses of electric power.

A Permanent Anchor

An electric utility, unlike the ordinary merchant and manufacturer, cannot pick up and leave an unprogressive community for a more promising situation. Most electric utility facilities are permanently anchored in the ground and the company must remain where it is, for better or for worse. When a utility gets itself married to an area, it is completely and irrevocably hitched and not even an ecclesiastical dispensation can sever the knot. But a utility can do much to increase the happiness and profit of such a marriage through the energetic and enlightened inspiration of higher tastes, desires and talents in its "spouse."

Uncle Remus, my favorite raconteur and philosopher, once told his young white charge of a spirited race between B'rer Fox and B'rer Rabbit. "Down de big road dey galloped," he said, "wid B'rer Fox gainin' on B'rer Rabbit evvy step until finally he was breathin' down B'rer Rabbit's neck. Jest den, B'rer Rabbit spied a 'simmon tree and up it he scampered." "But, Uncle Remus," said the little boy, "I didn't know a rabbit could climb a tree." "Well, you see," Uncle Remus replied, "this time B'rer Rabbit was jest 'bliged to climb de tree."

Most electric utilities, in my view, are in that position with respect to area development programs. They are "jest 'bliged" to have them, not only to sustain

sales and meet their ever-growing financial commitments, but also to see that nothing is omitted in their territories which might weaken us and our allies in the unending and all-out economic struggle between communism and free-enterprise capitalism.

Type of Executive for Program

Having considered the broad objectives of an area development program and its essentiality to most electric utilities, we may turn our attention now to the type of executive required to formulate and direct such a program.

In the first place, such an executive must be a person of the broadest possible interests. His range of understanding should be as wide and as varied as the human society in which he will be required to work. This is true because area development is as all-embracing as the whole range of community life and no part of human interests and human aspirations should be foreign to the community development executive.

He should be talented in public relations and ever mindful of the fact that leadership in area development provides an opportunity beyond price for his company to win public recognition, support and friendship for what it is trying to do. We hear a great deal of talk these days about creating a favorable "corporate image." I don't know of a better image, or impression, a utility can create than that of an organization eager to work, advise, lead and cooperate with all who have the betterment of the community at heart.

He should be a man who can work with others and, even more important, who can inspire others to work together among themselves. Area development is not a job for credit seekers or grandstand players or individual performers. The man who gets out in front and leads the parade and insists on recognition for his individual efforts will sooner or later discover that the rest of the marchers have gone home and left him to parade by himself.

He should be a practical man rather than a dreamer or messiah. We are all willing to listen to a spellbinder for a while. But when his flights of imagination are not accompanied by down-to-earth plans and attainable goals we finally turn our attention to more rewarding and realizable pursuits.

He should be a man who can plan logically, carefully and thoroughly. In a situation where many people are working together on a voluntary basis, each having his own special interests and concerns though participating in the endeavor as a whole, only the most carefully thought-out procedures can prevent confusion, conflict and frustration.

He should be a man of such versatility that he can work with many groups and agencies not only at home but in other sections of the nation. These groups include representatives of industrial concerns, financial institutions, research organizations, colleges and universities, government agencies and various others.

He should know how to select and work with experts and specialists, for he will surely need their services, but he must have the ability, while cooperating with them, not to become too enmeshed in the specialized and fractionalized phases of the development program.

A company with which I am familiar found that few communities in its area, none of the small ones and only a handful of the larger ones, had made any physical arrangements for the accommodation of new factory buildings. However much these towns wanted industries they had no place to put them.

What was needed was industrial tracts, created under proper zoning laws and furnished with utilities, highways, access roads, railroad sidings, neighboring tracts for housing development and so on.

The company's area development executive recognized that having failed to make adequate provision for new industry through orderly planning, these communities were doing themselves great damage. Blighted residential areas, dislocated traffic, overcrowded schools, inadequate water and sanitary services were already in evidence and the pattern was spreading.

The area development representative had the imagination and initiative to enlist the services of municipal planning experts on the faculty and among the advanced students of one of the state colleges. He put them to work making plans and blueprints for the orderly improvement of these backward communities—a job which should have been undertaken years ago by the municipal authorities. In the course of his close association with these experts, he became something of a municipal planning expert himself but he had the good judgment not to undertake this function on his own!

Like the Company President

From the list of qualities I have suggested, it can be seen that the qualifications of an area development executive should closely approach those of a chief executive of a utility company. If this seems too exacting a requirement, I would only point out that the ultimate responsibility of a chief executive is public relations—so directing all the functions and activities of the company (sales, operations, system planning, financing, etc.) as to win public favor and support. Since area development is essentially a public relations activity, the executive who guides it will necessarily be a right arm of the chief executive and his work will, to a considerable extent, parallel and complement that of the president of the company.

Finally, let us consider what returns an electric utility should expect for the large outlays of time and money required for a successful area development program.

Based on the experience of our companies, I think the returns—though difficult to identify and evaluate—are large. They consist, among other things, of increased sales and revenues; higher morale among employees and a more favorable relationship with the public; increased investor interest in, and prestige for, the company's securities, and valuable insurance against the encroachments of government power.

Topping them all, I think, is the sense of creative participation in civic affairs which is derived not only by the company itself but by all who invest in and work for it. This is a valuable aid for breathing life and personality into the corporate image and for building self-respect, enthusiasm and loyalty among employees.

When I think of the vast sums that are wasted each year in slick and generally useless gimmicks for attaining these goals, I am more than ever convinced of the worthwhileness of the programs entrusted to area development people.

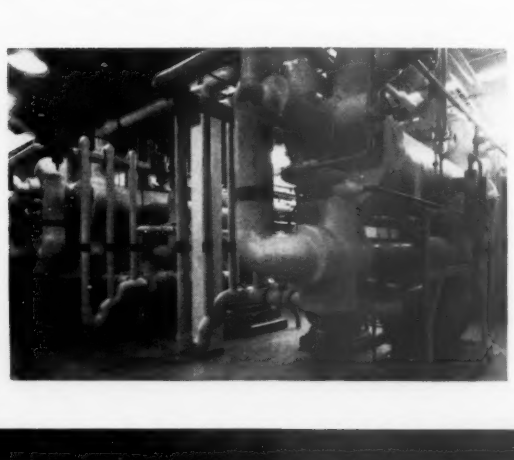
Arkansas P&L Occupies Modern New Home

Between the first and second floors of the new AP&L building is one of the first two-way escalators, above, ever placed in operation anywhere.

Meeting room of the building, above, is designed for demonstrations of electrical appliances at meetings of company officials.

The new home of Arkansas Power & Light Co., above, in Little Rock is designed for the future. Containing 70,000 square feet of indoor space, the brick, marble, aluminum and glass structure has three floors. The first floor is occupied by employees serving the electric customers. The second floor is occupied by the Little Rock division administrative employees, division sales and engineering departments and the general office sales and development department. Executive offices are located on third floor of building.

Customer service clerks seated at the desks, above, give prompt attention to customers wanting information pertaining to their electric service.



Compressors, left, in the heat pump system, use only air and electricity to provide year-round weather conditioning for AP&L employees.

Gas-Magnetic Field System of Power Generation Studied by 10 Companies

Electric Utilities Team with Avco in a Research Project Which Could Revolutionize U. S. Power Industry

TEN leading power companies have joined with Avco Corp. in a research project which could revolutionize the nation's electric power industry and effect a 25 percent increase in operating efficiency, the participating companies have announced.

Key to the project is elimination of most of the turbine-generator in today's conventional power generation cycle.

The new power system is based on the scientific principle of magnetohydrodynamics (MHD). A small experimental laboratory device utilizing the MHD principle to generate electric power is currently operating successfully at the Avco-Everett Research Laboratory in Everett, Mass.

Participating Companies

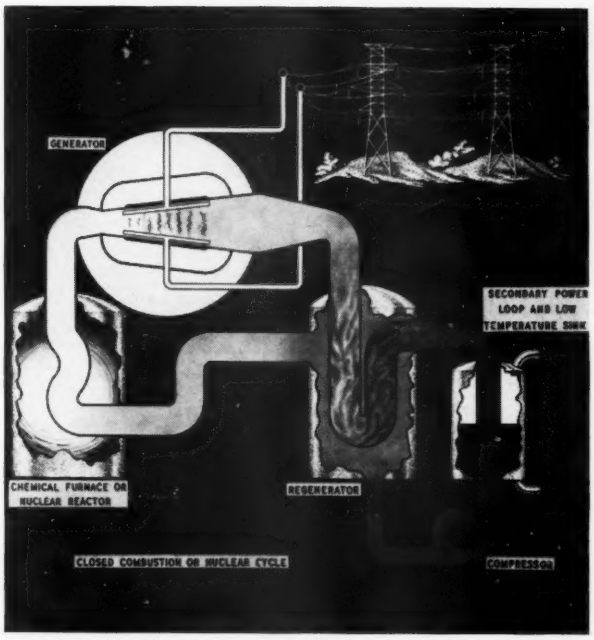
The utility group joining with Avco includes: Appalachian Power Co., Roanoke, Va.; Central Illinois Light Co., Peoria, Ill.; The Dayton Power and Light Co., Dayton, Ohio; Illinois Power Co., Decatur, Ill.; Indiana & Michigan Electric Co., Fort Wayne, Ind; Indianapolis Power & Light Co., Indianapolis, Ind.; Kansas City Power & Light Co., Kansas City, Mo.; Louisville Gas and Electric Co., Louisville, Ky.; Ohio Power Co., Canton, Ohio, and Union Electric Co., St. Louis, Mo. (Applachian, Indiana & Michigan and Ohio Power are subsidiary companies of American Electric Power Co.)

The 10-company utility group will be represented by American Electric Power Service Corp., as agent, in carrying out the joint research project with Avco.

The project upon which the group has embarked will explore the feasibility of obtaining electric power from a "hot gas"—or magnetohydrodynamic—generator. In a conventional electric power plant a solid coil of wire, or armature, passes through a magnetic field to produce electricity. In the MHD generator a super-heated, ionized gas is substituted for the armature, eliminating much of the heavy and costly equipment of a conventional system.

MHD Studied for 10 Years

Magnetohydrodynamic studies have been conducted for more than 10 years by personnel now at the Avco-Everett Research Laboratory. Avco scientists first began work in the MHD field in connection with space propulsion and the many problems involved in successful re-entry from outer space.



This chart shows magnetohydrodynamic commercial power generation cycle. Chemical furnace or nuclear reactor, lower left, heats and ionizes working gas, which then flows through a magnetic field in the MHD generator. Direct current is tapped off the ionized gas by means of electrodes in the generator. Gas is then cooled in regenerator and heat sink, compressed and then pre-heated in regenerator prior to re-entering furnace for heating and ionization. Ten power companies and Avco Corp. have joined in project's research.

As the result of these investigations of space travel and re-entry, sufficient knowledge of the behavior of high temperature gases has been acquired to make possible a serious attempt to produce electrical power for utility application.

Preliminary investigations made by Avco and American Electric Power engineers indicate that a system using the MHD generator can be 25 percent more efficient than existing power generation systems, while considerably simpler in concept. It is further indicated that capital costs of an MHD plant will be competitive with costs of a conventional plant.

A relatively new and unexplored area of science, magnetohydrodynamics concerns the interaction of a magnetic field and a gas which has become ionized through high heating and which has thus become an electrical conductor.

At present, two types of power plants are being studied in conjunction with magnetohydrodynamic gen-

erators. One would use a coal-fired furnace to heat and ionize the gas entering the magnetic field of the MHD generator; the other would use a nuclear reactor for the same purpose.

"This joint research venture," Philip Sporn, President of American Electric Power, said, "represents some highly intriguing and exciting possibilities. Not only does it appear conceivable that a magnetohydrodynamic power plant may be developed and built at a competitive cost, but it also appears that it will make possible much greater efficiencies of operation than we now know and open a wide avenue of prospects for future improvements."

Mr. Sporn said that within the next eight to ten months $350,000 would be spent to investigate this system, with the utilities putting up two-thirds of the amount and Avco the remainder.

Estimates of when the system might become practicable and competitive with conventional equipment ranged from 10 to 30 years.

Dr. Arthur Kantrowitz, Avco Vice President and Director of the Avco-Everett Research Laboratory, noted that an experimental device, designed and built by Dr. Richard Rosa of Avco-Everett, utilizing the MHD principle has attained more than 10,000 watts power output in the laboratory. "This constitutes a first step in putting MHD into engineering practice," he said.

Many New Fields

Dr. Kantrowitz further pointed out that research into MHD power generation may open up many new fields. "We actually are mating studies in two fields with great potential, gas dynamics and electromagnetic theory," he said, "and there is a wealth of offspring possible, including applications in space propulsion, in the behavior of interplanetary plasma and the Van Allen radiation belt, and eventually in controlled nuclear fusion power."

Mr. Sporn pointed out that costly items of equipment which would be eliminated in the MHD system include "part of the boiler, steam piping, steam turbine, steam condenser, boiler feed pumps and a host of other assorted equipment."

He added that "we hope to obtain a practical evaluation of the potential gains of magnetohydrodynamics as well as any possible problems during the study period upon which our group is embarking with Avco."

NEMA to Administer Medallion Home Trademark

ON Jan. 1, 1960, as EEI's National Electric Living Program becomes the Live Better Electrically Program, General Electric Co. will transfer the rights, title and interest in the Medallion Home trademark to the National Electrical Manufacturers Association.

EEI will promote the Medallion Home Program through national advertising and publicity.

While the use of the trademark and its assignment to local power suppliers will reside with NEMA, minimum specifications and standards will be the responsibility of EEI.

The distribution of the Medallion will be through local power suppliers only and requirements for the Medallion shall be confined to electric usage only.

Transfer of the Medallion Home rights, title and interest in the trademark to NEMA was made by General Electric with the stipulation that if NEMA discontinues the program, all rights, title and interest will return to General Electric.

EEI Promotion Not Affected

Since January, 1958, the Medallion Home Program has been administered by the Live Better Electrically project under the auspices of General Electric. EEI's National Electric Living Program has included promotion of the Medallion Home, as well as appliances, Light for Living and HOUSEPOWER. Transfer of the trademark to the administration of NEMA will not affect EEI's promotion of the Medallion Home.

The administration of the trademark was approved by NEMA's Board of Governors and submitted to the NEMA general membership, which also approved it, at the Association's 33rd convention.

NEMA will provide the headquarters staff to insure that standards of local electric utilities meet established minimums and to prevent unauthorized use of the Medallion. NEMA also will provide promotional material to participating utilities, including the Gold and Bronze Medallion plaques.

Bronze Medallion Home standards require as a minimum that homes be equipped with an electric range, plus three other major appliances, Light for Living and adequate wiring for full HOUSEPOWER. Gold Medallions are awarded to homes that include electric house heating.

It is estimated that over 6,500 home builders have been signed up by local utilities for participation in the program. These builders have agreed to build homes meeting Medallion Home electrical specifications set by their respective utilities.

"Medallion Home certification should be increasingly effective in helping builders merchandise their homes, since it impresses prospects with a home's electrical quality," Joseph F. Miller, NEMA Managing Director, said. "The Medallion symbol is known to create considerable local prestige for participating builders. More importantly, sustained advertising by utilities over the past two years has given the Medallion Home symbol great promotional power."

Pennsylvania P&L Warns of Dangers in Operating Cranes Near Power Lines

IN an effort to help increase awareness among crane, boom and hoist operators of the dangers of contacting electric lines, Pennsylvania Power & Light Co. conducted an extensive information program, using folders, newspaper advertisements and radio and television commercials.

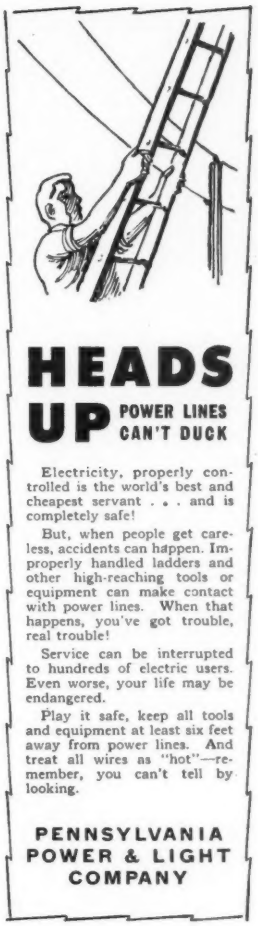
The folder, with the warning: "Heads Up! Electric Lines Can't Duck!" was made available to all construction and rigging firms in the PP&L service area. The folder cited the Pennsylvania Department of Labor and Industry Rule which forbids the operation of a crane or hoist within six feet of an electric line, except when appropriate arrangements have been made with the owner or operator of the electric line.

The folder also carried several illustrations of situations to avoid, as well as steps to take when work must be done near electric lines.

Single-column newspaper advertisements, carried in both dailies and weeklies in the area, directed attention to the hazards of working near high-voltage power lines. Line drawings showed dangerous situations and the headline on the copy read: "HEADS UP—Power Lines Can't Duck."

Radio and television commercials were used on 43 radio stations and six TV stations. They warned about improperly handled cranes, booms and drilling rigs near electric lines.

Attention also was called to the dangers in erecting television antennae and chopping down or trimming trees near electric lines. "In fact, the time to start safety with trees is when they are being planted," the commercial said. "Start them a good distance from lines and they can't be hazards when they grow up."


HEADS UP POWER LINES CAN'T DUCK
Electricity, properly controlled is the world's best and cheapest servant . . . and is completely safe!
But, when people get careless, accidents can happen. Improperly handled ladders and other high-reaching tools or equipment can make contact with power lines. When that happens, you've got trouble, real trouble!
Service can be interrupted to hundreds of electric users. Even worse, your life may be endangered.
Play it safe, keep all tools and equipment at least six feet away from power lines. And treat all wires as "hot"—remember, you can't tell by looking.
PENNSYLVANIA POWER & LIGHT COMPANY
HEADS UP POWER LINES CAN'T DUCK
Electricity, properly controlled is the world's best and cheapest servant . . . and is completely safe!
But, when people get careless, accidents can happen. Improperly handled cranes, booms and drilling rigs can make contact with power lines. When that happens, you've got trouble, real trouble!
Service can be interrupted to hundreds of electric users. Even worse, your life may be endangered.
Play it safe, keep crane booms and other equipment at least six feet away from power lines. Treat all wires as "hot"—remember, you can't tell by looking.
PENNSYLVANIA POWER & LIGHT COMPANY

Advertisements such as these were placed in daily and weekly newspapers in the Pennsylvania Power & Light Co. service area to warn both contractors and customers of the dangers involved in operating equipment in the vicinity of power lines. All of these ads carried the caption: "Heads Up—Power Lines Can't Duck."

Parkerson Named Supervisor of Statistics for EEI

WILLIAM PARKERSON

THE appointment of WILLIAM PARKERSON as EEI Supervisor of Statistics has been announced by Edwin Vennard, Vice President and Managing Director of the Institute.

Mr. Parkerson, who has more than 35 years experience in utility statistics and rate matters, will work with John Thornborrow in the Department of Economics and Statistics.

A graduate engineer of Tulane University, Mr. Parkerson started his utility career with Louisiana Electric Co. (now Gulf States Utilities Co.), Lake Charles, La. Subsequently he served with Public Service Co. of Oklahoma, Central Power and Light Co., Middle West Service Co. and Ebasco International Corp.

In his last position as assistant manager of the Rate Department at Ebasco International, Mr. Parkerson had assignments in Brazil and Chile. He is a member of the American Statistical Association and American Society of Mechanical Engineers.

Soviet Group Sees U.S. Electric Power

12-Man Team in 30-Day Tour Visits Leading Power Facilities and

By Harvey E. Bumgardner
Chairman, EEI Technical Exchange for Overseas Visitors Committee; Assistant to President, The Detroit Edison Co.

A RUSSIAN exchange group, the first one assigned by the Soviets to inspect overall development of electric power here, paid a 30-day visit to the United States during October.

This visit was part of a technical and cultural exchange program established by the United States and the Soviet Union. The tour was sponsored by the Edison Electric Institute and the Association of Edison Illuminating Companies, under the auspices of the U. S. Department of State. The State Department supplied the interpreters.

The Russian group comprised 12 top-level engineers and administrators headed by K. D. Lavrenenko, First Deputy Minister of Electric Power Station Construction. He and N. P. Galochkin, Chief Engineer, Foreign Department, Ministry of Power Station Construction, who also was a member of the group, accompanied the American delegation when it visited the Ural, Siberian and Armenian areas of the USSR this summer. Galochkin also accompanied the Americans on their trip through European Russia in August of 1958.

The stature of the visiting group was most impressive.

Of interest to the Russian power experts was the load of 345,000 kilowatts on Unit No. 3 at the River Rouge plant of The Detroit Edison Co. There were 12 in the team.

For example, one member has full responsibility for building 140 thermal power plants, with an average capacity of about 300 mw each, between now and 1965. Another is responsible for the construction of all atomic power stations in the USSR. Still another was referred to as the "General Electric or Westinghouse" of the USSR, inasmuch as his large apparatus factory produces most of the appliances made in the USSR. Another member was the director of the largest USSR thermal station (600 mw now, and being increased to 1,000 mw). For all except one in the group, this was a first visit to the United States.

Bumgardner Is Coordinator

As Chairman of the EEI Technical Exchange for Overseas Visitors Committee, I negotiated the exchange program on the basis of what the Russians wished to see and what we had already seen on our two visits to the USSR. I served as coordinator throughout their visit.

The trip of some 10,000 miles by air, bus and train, from New York to California and back to New York, included visits and meetings with the EEI; Atomic Industrial Forum, Inc.; nine operating electric utility companies; four atomic power plant groups (visits to two installations); four heavy electrical manufacturers, and two government electric power agencies.

In all, the Soviet delegates met with some 400 American utility and manufacturing executives and engineers. For example, they visited the Astoria and East River Generating Stations of the Consolidated Edison Co. of New York, Inc.; the Bergen and Linden Generating Stations of the Public Service Electric and Gas Co.; the Eddystone and Cromby Stations of the Philadelphia Electric Co.; the Potomac River Generating Station of the Potomac Electric Power Co.; the River Rouge and St. Clair Power Plants of The Detroit Edison Co.; the Philo Plant of the Ohio Power Co.; the Avon and Eastlake Plants of The Cleveland Electric Illuminating Co., and the Huntington Beach and Big Creek Plants of the Southern California Edison Co.

Nuclear Power Stations Visited

The nuclear power installations visited were Yankee Atomic and Enrico Fermi. The Dresden and Indian Point projects were discussed with them.

Reactions of the Russian group from the time they landed at Idlewild to the end of their visit indicated that they were deeply impressed with what they saw in the United States. They liked our American foods and drinks, and took many hundreds of photographs, both at

Developments

Manufacturing Plants

electric power installations and in the course of traveling throughout the country.

At the start, I assured the visitors that they were free to ask any questions they wished. They did just this, with inquiries ranging all the way from the names of the constructors of our power plants to requests for a complete set of engineering drawings of one of the newest thermal stations they visited. In response to questions on our own part as to what the visitors thought of our power plants, the answer usually was: "Well, they're not as large as ours."

The voluminous notes taken and the oft-repeated questions would indicate that the Russians have some major problems in developing their electric power system, especially in the design and construction of larger-size steam turbines, the construction methods used in building power plants, and the operation of power plants.

They were interested specially in:

- Number of people required in the operation of a power plant—(about three times as many are employed in the USSR).
- The bunker coal storage capacity.
- Efficiency of boilers, turbines, condensers, etc.
- Turbine overhaul schedules.
- Procedures for designing and constructing power plants.

Walker L. Cisler, right, President of The Detroit Edison Co., and Harlan Hatcher, center, President of the University of Michigan, exchange views with Minister Lavrenenko regarding their visit to the Soviet Union.

- Costs.
- Load factors.
- Time required to install turbines and boilers.
- Circuit breakers.
- Welding techniques.
- Building materials.
- What we would do if the load should drop to zero in a power plant.

They did not appear to be interested in utilization of electric power nor in rural electrification.

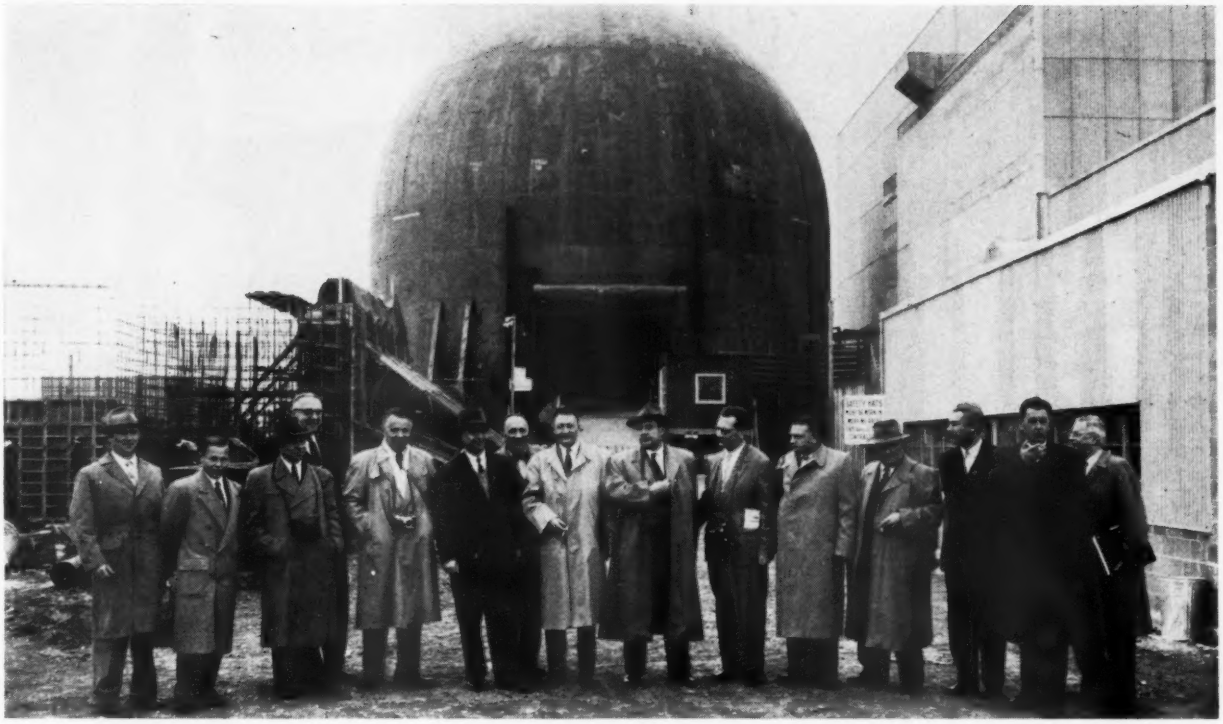
While at Detroit Edison, the Russian group visits Menlo Park (Edison's Laboratories) at Greenfield Village in Dearborn, Mich. Here the group poses before statue of Thomas A. Edison. K. D. Lavrenenko, First Deputy Minister of Electric Power Station Construction for the Soviet Union, is shown directly beneath the statue of Edison.

A switching station of The Cleveland Electric Illuminating Co., above, was of considerable interest to the Soviet power delegation. Safety hats were new to them.

N. P. Galochkin is snapped by a third cameraman as he aims his own camera at a photographer who had zeroed in on the engineer.

Elmer L. Lindseth, right, President of The Cleveland Electric Illuminating Co., shows his Avon plant to visiting Russian group. At left is Harvey Bumgardner, The Detroit Edison Co., who accompanied the Russian team on its tour. Minister Lavrenenko is in the center.

President R. G. Rincliffe of The Philadelphia Electric Co. adjusts safety hat of Minister Lavrenenko, right, at the company's Eddystone plant, visited by the group.



One of the highlights of the tour was a visit to the Enrico Fermi Atomic Power Plant of The Detroit Edison Co.-PRDC at Monroe, Mich. Mr. Galochkin, Chief Engineer, Foreign Department, Ministry of Power Station Construction, is fifth from left, and to the right of him is Minister Lavrenenko. The team covered 10,000 miles on U. S. tour.

As usual whenever top-level Russians have visited the United States recently, there was a strong interest in discussing foreign trade. The Russians met mixed reactions when they raised this question with particular regard to power plant equipment. For example, one turbine manufacturer said, in effect, that he could not do business with the USSR because the Russians do not respect our patents. He said that if he were to sell them a high-pressure, high-temperature turbine, that would be the first and last sale, since the purchasers would take it apart, make drawings, and go into production.

A boiler manufacturer agreed to sell the Soviets a complete set of drawings of his latest boiler design for $10 million. He added that he would not expect any further business from them.

In addition to plant visits and technical meetings, the Russians learned about the American way of life through visits to Massachusetts Institute of Technology, the Ford Museum and Greenfield Village, the Ford Motor Co., the General Motors Technical Center, American homes (large and small), supermarkets, shopping centers, a school, housing developments, the Air Force Academy, a football game, two Broadway productions and Disneyland. They even had a swim in the Pacific.

This Crazy Football

When they attended the football game, one of the group asked me why we call it football and remarked: "It seems to me they spend most of their time unscrambling their backsides."

Whereas the Russians would not usually admit that we had anything that was as large (or as good) as they had, there was one exception. At a luncheon in Fresno, Calif., we were each served a helping of lamb which consisted of eight ribs. When the Russians saw this, they readily admitted that this was, without question, larger than anything they had seen in Russia.

Feared Electric Blankets

Visiting in the mountains outside of Fresno, our guests had their first experience with electric blankets. I had to help them adjust the thermostats and assure them that they would not be scorched.

Traveling in a country where consumer goods are plentiful and easily purchased was a brand new experience for the Russians. Arriving at an airport, they would take off in every direction to see what was available for purchase in the shops. As soon as it was learned how eager they were to visit our department stores, three half-day shopping periods in different cities were introduced into the program. They purchased many items, such as women's coats, toys, eye glasses, jewelry and men's shirts to take back home.

As the visitors were leaving the United States, they left with me several hundred questions for which they requested written answers. These are being assembled as rapidly and completely as possible.

In general, the Russians were a most friendly group of people and were very well received wherever they went. They liked to sing and offered many toasts to peace and friendship. I believe they were all convinced that the United States does not want war.

The Russians remarked several times that this first electric power exchange should not be the last, a suggestion with which we concurred.

All in all, they enjoyed their more or less complete

Charles E. Eble, President of Consolidated Edison Co. of New York, Inc., presents to the Minister a picture story of the visit of the United States electric power group to the Soviet Union. The Soviet team was in the U. S. 30 days.

freedom under a people's capitalist system as compared to their limited freedom under their own State capitalism. They appeared to like the way we live, work and play. In my opinion, this was a most worthwhile experience for them and cannot help but result in better relations between our industries and our two countries generally.

Having traveled some 30,000 miles in 60 days with Russians, both in the USSR and in the U. S., I should like to inject a comment on electric power developments in the USSR. These days, you read much about how Russia is exceeding the United States in this or that field. Some of these statements are made with, and some without, adequate facts to back them up. To be sure, the Russians are on the move in developing electric power according to their seven-year plan but, even so, they are not keeping up with the United States, let alone closing the wide gap. This year, the Soviets will add about 6 million kw of capacity while tne U. S. is adding about 14 million kw.

True, the Russians do have a few larger hydraulic power plants, but then you must understand the Russian philosophy, which is to have the biggest of everything for propaganda purposes even though the overall results are little affected.

Throughout the world, electric power output is considered a good measure of a country's economy. On that basis, the Russians are far behind us. (In 1958, 218.9 billion kwhr for Russia vs. 724 billion kwhr for the U. S.) However, a larger *percentage* of electric power is going into industry and defense in Russia than in the

(*Continued on page* 418)

One of the points of interest of the Russians' tour of the United States power facilities was the control room of The Cleveland Electric Illuminating Co.'s Eastlake plant. Mr. Galochkin is second from left and the Minister is fourth from left. For all except one of the Soviet team of power experts, this was their first visit to the United States.

Problem of Government Ownership of the Electric Business

(*Continued from page* 404)

terest as it has on $1.4 billion of Congressional appropriations to the TVA, or lends money at an interest rate which is less than the going market value and frequently less than the actual cost to the government of borrowing money.

Government power projects escape all Federal taxes and frequently pay less local and state taxes than companies.

An analysis of TVA for 1957* shows the magnitude of these two items. In this analysis, we made TVA comparable to a large power company by combining the wholesale business with the retail business of the municipalities and separating the sales to the Atomic Energy Commission. The analysis shows that if TVA were required to operate on the same basis as power companies and required to pay a return equivalent to that required by power companies in order to finance in the free market, and if TVA were required to pay taxes equivalent to the power companies, TVA would have had to raise its rates 57 percent.**

Another major element in the growth of government ownership has been the development and application of the concept of preference. Government power projects are required by law to give preference in the sale of this below-cost power to other government power projects. Thus people are encouraged to build government power projects in order that they can get below-cost electricity at the expense of other Americans.

This trend in government ownership will stop only when these discriminations are stopped, and it is obvious that they can be stopped only when enough people are informed.

The ignorance factor prevails in these areas of discrimination just as it prevails in the general government ownership issue. Consider the tax discrimination. Surveys of public opinion reveal that most American people are unaware of the tax discrimination in electric power. The surveys further show that when people are informed they favor fair treatment.

About 83 percent of our people are unaware that city-owned systems pay no Federal income taxes. Yet when they are informed of this fact, 77 percent are opposed to the present practice.

The same is true in the case of TVA. Only 35 percent of the American people are aware that TVA does not pay the same taxes as electric companies. When asked if TVA should pay the same taxes, people are three to one in favor of its doing so.

Other surveys have shown that the people express similar views against the discrimination of preference and "cheap" money when they are informed of the facts.

As another example, consider the recently passed TVA Revenue Bond Bill. Thirty-three percent of the people never heard of TVA. Eighty-nine percent never heard of the TVA Revenue Bond Bill, and 74 percent of our own employees never heard of it. (Fig. 12.)

Why haven't these people heard of it? I guess we haven't told them.

We have no one but ourselves to blame for allowing the ignorance to continue.

The analysis shows there is much we can do about this challenging problem if we will but devote our hearts, minds and willpower to the task.

The problem is two-fold. One part deals with the over-all question of what type of economy we should have while the other part deals specifically with the power issue.

We operate the power business in an over-all climate of public attitude and knowledge on social and political matters. If the American people move in the direction of a government-operated and -controlled, planned economy and away from the concepts of individual freedom, then we in the power business move with it. Electric power will be one of the first industries to be nationalized. To preserve our business against government ownership, we should first contribute our part in the over-all problem of preserving freedom. We know that when people are informed as to the basic facts about the American economic system, they tend to believe the government should not own the power business.

The second part of our problem concerns the power issue. To solve it we should do this:

- We should first strive to maintain a good corporate image in the eyes of the people who work for us and in the eyes of our customers. We do this by performance. We do this by performing our jobs in such a way that people will want to work with us and our customers will want to be served by us. This image can and should be periodically measured.
- We should erase the ignorance that still prevails among our employees and among our customers on this power issue. Only when that is done can we expect to have the corrective measures required to bring about the equality in treatment of the two methods of operation.

In our kind of society, where importance is placed upon the individual, each must decide for himself what he shall do and how he shall do it. Each has his own field of influence—his family, his friends, his neighbors, his associates, his employees, his community.

We should do these things because the top issue in America today is whether we shall remain a country where the individual is free from government domination and control, or whether we shall again go back into the darkness and drudgery of a government-operated economy. We are heading rapidly toward government operation. You and I are in the forefront on that issue. We hold an important key to its solution. Will we use it?

The reward would be great for all Americans. We could be vital in starting a return to sanity and a rededication to the values we are in danger of losing. We could give assurance that we will maintain for our children the same opportunities we have had for ourselves.

* A Study of the TVA Power Business, Edison Electric Institute, 1958.

** This is 57 percent of TVA's 1957 revenue, which revenue is lower than it should be by reason of the fact that TVA did not pay adequate interest and paid much less in taxes than power companies pay.

Willson Warns Wisconsin Utilities Group on the Hazards of Big Government

More Taxes, Less Freedom and More Government Competition in Business Predicted Unless Corrective Action Is Taken

THE United States is "on the road to more taxes, less freedom and more government competition in business" unless remedial action is taken, S. V. Willson, President of both the Wisconsin Utilities Association and the Northern States Power Co. (Wis.), warned delegates to the annual convention of the Association's Electric and Gas Operating and Sales Sections in Milwaukee in October.

Mr. Willson delivered the principal address at the joint luncheon session the second day.

"The philosophy of a big government taking care of all, and thereby controlling all, seems to have increasing acceptance from an articulate and disciplined group of disciples," Mr. Willson said. "We are on the road to more taxes, less freedom, and more government competition in business unless we are as effective in selling our ideology as the opposition has been in peddling the philosophy of government ownership and operation of utilities.

"We have allowed government to create a complex and bewildering system of controls, loans, subsidies, gifts and grants—all of which we must pay for through an equally confusing system of taxation, back door borrowing and manipulated budgeting," he told the group. "All around us we see big government in direct competition with thousands of tax-paying businesses, competing on a completely unfair basis. The cost to America is tremendous, with 30 percent of the wealth we produce being claimed by all levels of government in the form of direct and indirect taxation."

Mr. Willson said, "Our utility industry makes impressive contributions to the country's economy, and that is no doubt why we are a prime target for the collectivist group that is promoting government ownership. The public power boys know that the economic well-being of any country depends on the twin sources of energy—electricity and gas."

"During his recent visit to this country, Khrushchev declared that history is on his side," Mr. Willson said. "How well you and I assume the responsibility for selling private enterprise will determine whether history regards him as a prophet or as a wishful thinker."

He cited the following contributions of investor-owned utilities of Wisconsin to the economy:

- Paid taxes in 1958 aggregating $58 million.
- Will spend $105 million on new construction in 1959.
- Paid $74 million in wages last year to 12,566 employees.
- Maintained rates at approximately what they were 20 years ago, according to the Public Service Commission of Wisconsin.

Actually four conferences in one, the convention presented 35 different topics ranging from outdoor cooking to the concerted action taken by the Northern States Power Co. (Wis.) to restore service following the devastating tornado that all but demolished the community of Colfax last year.

A feature of the convention program the first day was the "salute to distributors" arranged by the Electric and Gas Sales Sections. Distributors of electric and gas consumer products were the honored guests of the two sales groups at the first day's joint luncheon.

Lyle H. Kingston, Transmission Engineer, Wisconsin Public Service Corp., was appointed Chairman of the Electric Operating Section. He succeeds G. K. Hickman, Wisconsin Electric Power Co.

Russians Tour U. S.

(*Continued from page* 416)

United States (80 percent vs. 48 percent of total generated). Conversely, this means that only a relatively small amount of electric power output goes into the USSR consumer economy. It seems that before long the Russians will have to allot more power for use in homes in order to keep their people happy. Although Russia uses a far greater percentage of its total output for industry and defense than the United States, it is well behind the U. S. in actual kilowatt-hours used for these purposes. (Russia 208 billion kwhr vs. 354 billion kwhr for the U. S. for 1959).

Though the Russians now are constructing a few very large hydraulic power stations, there will be less hydraulic power developed percentagewise during the next few years. Mr. Khrushchev, in his 1958 speech at the dedication of the Kuibyshev Hydraulic Power Plant, attributed this to the fact that hydraulic power is too costly and takes too long to construct.

The Russians have need for more electric power capacity as soon as it can be provided. They also have need to employ large, high-pressure, high-temperature units. You can understand the urgency to develop electric power when it is realized that the USSR is two-and-one-half times the size of the United States and has a population which presently is some 40,000,000 greater than that of the United States.

J. H. Mickler, second from left in photo above, Tampa Electric Co. lineman, holds EEI Medal he received for saving the life of lineman C. H. Young, second from right. W. C. MacInnes, left, President of Tampa Electric, and Jack Davis, the Safety Director, look on.

R. J. Dantuono, center, in photo at right, lineman for the Potomac Electric Power Co., shakes hands with fellow linemen who saved his life when he received an electric shock. B. F. Robinson, left, received EEI Medal; J. H. Reumont, right, was awarded the Certificate of Assistance for saving Mr. Dantuono's life.

Five Receive EEI Medals for Life-Saving Efforts

FIVE employees of EEI member companies have been awarded the Edison Electric Institute Medal for saving the lives of four fellow workers and a construction company worker who were suffering from electric shock.

This brings to 505 the total awards reported since the Medal was established in 1933 to encourage the use of the approved manual resuscitation techniques and to honor employees whose application of these techniques resulted in the saving of human life.

Brief descriptions of the five latest resuscitations to be recognized with the awarding of the EEI Medal are listed here.

B. F. Robinson
Potomac Electric Power Co.

On the afternoon of March 20, 1958, lineman R. J. Dantuono of Potomac Electric Power Co. was working on a pole in Muirkirk, Md., and made contact with an energized wire. Lineman B. F. Robinson was preparing to ascend the pole adjacent to the one on which Mr. Dantuono was working when he heard the injured lineman cry out. He immediately climbed the pole and found Mr. Dantuono unconscious and slumped in his belt. He was not breathing.

Mr. Robinson applied pole-top resuscitation and in about two minutes the injured man began breathing with great difficulty. Artificial respiration was continued until J. H. Reumont, junior lineman, arrived and helped lower Mr. Dantuono to the ground. By this time an ambulance had arrived and Mr. Dantuono was taken to a hospital where he was treated for second degree burns on the left hand and feet.

R. D. Whitley, M.D., Medical Director of Potomac Electric, said that "undoubtedly the fast thinking and efficient administration of first aid by his co-workers were important factors in the saving of this worker's life or the prevention of more serious injuries."

The EEI Medal was awarded to Mr. Robinson and the Certificate of Assistance was awarded to Mr. Reumont. The presentations were made by G. C. McCabe, Vice President and Manager, Electric System, Potomac Electric.

J. H. Mickler
Tampa Electric Co.

J. H. Mickler, apprentice lineman, and C. H. Young, lineman, Tampa Electric Co., were checking out a pole-top switch at the Fort King Highway substation in Pasco County on the afternoon of May 8, 1958, when the switch was energized as Mr. Young touched it.

Mr. Young froze into a rigid position and Mr. Mickler immediately opened the switch. Mr. Young slumped and started to fall backwards from the 24-foot extension ladder upon which he was working. Mr. Mickler moved to the ladder in time to break Mr. Young's fall. Both men fell to the ground. The injured man's body was stiff, his eyes protruding and he was not breathing. Mr. Mickler began immediately to apply artificial respiration.

E. B. Pinkard, second from left in photo above, examines EEI Medal awarded to J. T. Davis, Appalachian Power Co. street light attendant, who helped to save Mr. Pinkard's life. D. C. Duncan, Appalachian Safety Director, is at left. The three men who received Certificates of Assistance (holding certificates) are from left: E. L. Baker, R. H. Porter and M. E. Campbell.

The EEI Medal is pinned on E. W. Shaffer, Jr., electric serviceman for Gulf States Utilities Co., by H. C. Leonard, the company's Executive Vice President, in photo at left. Mr. Shaffer saved the life of a construction company employee who had received shock.

J. P. Corrigan, right, lineman for The Hartford Electric Light Co., is presented the EEI Medal by R. A. Gibson, left, President of the company, for saving the life of William Peska, lineman, center. Certificates of Assistance were awarded to three other employees who assisted in resuscitation of their fellow worker.

Foreman J. W. Mansfield placed his closed pocket knife between the victim's teeth. After a short time Mr. Young began to breathe. An ambulance arrived soon afterwards and Mr. Young was taken to the Jackson Memorial Hospital in Dade City. Twenty-four hours later he was transferred to the Tampa General Hospital. Nearly 35 percent of Mr. Young's body was burned, with third degree burns on his right hand and wrist, right hip, right shoulder and other parts of the body.

Mr. Mickler was awarded the EEI Medal. The award was made by W. C. MacInnes, Tampa Electric President.

E. W. SHAFFER, JR.
Gulf States Utilities Co.

E. W. Shaffer, Jr., electric serviceman for Gulf States Utilities Co., on the afternoon of July 29, 1958, was sent on an electrical trouble call at Hooper and Lovett Roads in Baton Rouge, La. When he arrived he found that Felton Boggs, an employee of the R. D. Cooper Construction Co., who had accidentally received severe electric shock and burns, was unconscious and was not breathing. Mr. Boggs had been tying in an energized jumper with a tie stick when he had apparently touched one end of the energized jumper.

Mr. Shaffer immediately began to apply artificial respiration until Mr. Boggs' breathing was restored. Mr. Boggs was treated for second and third degree burns of the body—from the waist to the shoulders and on both arms—by Louis Mayer, M.D., Baton Rouge. Mr. Mayer stated that "I certainly feel that Mr. Shaffer's efforts contributed greatly to Mr. Boggs' survival."

The EEI Medal was presented to Mr. Shaffer by H. C. Leonard, Executive Vice President of Gulf States Utilities Co.

J. T. DAVIS
Appalachian Power Co.

On the afternoon of Nov. 9, 1958, E. B. Pinkard, vehicle operator-groundman and member of the crew replacing a burned-out regulator in Bedford County, Va., was shocked when he came in contact with an energized line.

Mr. Pinkard was preparing to help load the burned-out regulator. He was standing on the ground holding a winch line, and instructed the truck driver to pull ahead. When the truck did so, the right rear wheel veered into a 14-inch drainage ditch at the edge of the highway, throwing the gin pole into the end of the cross arm of a 12-kv line, energizing the gin and winch line.

Working with Mr. Pinkard were J. T. Davis, street light attendant, E. L. Baker, lineman, M. E. Campbell, groundman, and R. H. Porter, acting foreman. Mr. Porter knocked the winch line clear of Mr. Pinkard's body and assisted Mr. Davis in turning Mr. Pinkard over on his stomach. Mr. Davis began administering artificial respiration. Mr. Campbell removed the injured man's false teeth. Mr. Baker relieved Mr. Davis once while he was applying artificial respiration. Mr. Porter had made the calls to dispatch an ambulance. Mr. Pinkard was examined by D. C. Wilkerson, M.D., Bedford, Va., and hospitalized with electric shock and severe burns on the palms of the hands, left shoulder, right ankle and other parts of his body. He was in the hospital more than three months.

D. C. Duncan, Appalachian Safety Director, made the following presentations: EEI Medal to Mr. Davis; Medal Miniature to Messrs. Baker and Campbell; Certificate of Assistance to Mr. Porter.

J. P. CORRIGAN
The Hartford Electric Light Co.

William Peska, lead lineman for The Hartford Electric Light Co., on the afternoon of Nov. 18, 1958, while working on a pole in West Hartford, touched an energized wire.

J. P. Corrigan, lead lineman, was working on the south side of the pole and Mr. Peska was working on the north side. Hearing the sound of arcing, Mr. Corrigan looked up and saw that Mr. Peska was in trouble. Grabbing the injured man's shirt, Mr. Corrigan pulled him away from the line and began to apply artificial respiration. Anthony Calabrese, lineman, came to Mr. Corrigan's assistance. Foreman George Kent and John Concannon, groundman, helped get Mr. Peska down the ladder, after he had regained consciousness. He was taken to Hartford Hospital where he was treated by J. B. Wells, M.D., for third degree burns, including muscle tissue, above the left elbow, and burns on both legs.

R. A. Gibson, Hartford Electric President, made the following presentations: EEI Medal to Mr. Corrigan; Certificate of Assistance to Messrs. Kent, Calabrese and Concannon.

LBE Women's Conference Scheduled Jan. 7-9 in Chicago

THE 1960 Live Better Electrically Women's Conference, to be held at the Edgewater Beach Hotel, Chicago, Jan. 7-9, will have as its theme "Progress Is Our Future."

The conference is sponsored each year by the EEI Home Service Commitee, which is under the Chairmanship of Miss Judith E. O'Flaherty, Philadelphia Electric Co.

On the last day of the conference, a visit to the Merchandise Mart has been scheduled, where representatives of electric utility companies and guests will inspect the new appliances of major manufacturers.

The advance program is as follows:

Thursday, Jan. 7—"Electricity Is Your Better Way," Robert G. MacDonald, EEI Residential Group Chairman, and Vice President, West Penn Power Co.

"Climate Control," Dr. J. F. Downie Smith, Vice President, Research and Development Division, Carrier Corp., and William McGrath, Chief Engineer, Unitary Equipment Division, Carrier Corp.

"Space Heating," J. H. K. Shannahan, Chairman, EEI Residential Electric Heating and Air Conditioning Committee, and Assistant Vice President, American Electric Power Service Corp.

"Home Service Sells Wiring," Frances Armin, Director, Residential Program, National Wiring Bureau.

"Education Opens the Door to Tomorrow's Electric Living," Dr. Naomi Albanese, Dean of the School of Home Economics, University of North Carolina.

"Lighting," J. H. Jensen, Director of the Academy of Lighting Arts, General Electric Co.

"Color, Light and Magic," Lee Taylor, Director, Commercial Sales, The Detroit Edison Co.

Friday, Jan. 8—"Live Better Electrically Program," E. O. George, Chairman EEI Sales Division, and Vice President, The Detroit Edison Co., and Ralph Zeuthen, Manager, EEI's Live Better Electrically Program.

"Major Appliances," Miss Helen Kirtland, Manager, Consumer Institute, General Electric Co.

"New Approach to Kitchen Planning," Miss Virginia Thabet, Equipment Editor, *American Home* magazine.

Two presentations are scheduled for Friday afternoon —"Ideas to Make Customers Stop, Look, Listen and Buy," and "Selling All Your Company Services." Speakers have not been selected.

The luncheon speaker on Friday will be W. R. Lober, Manager, Total Electric Home, Westinghouse Corp., who will discuss the "Total Electric Home."

At the luncheon on Saturday, Miss Elizabeth S. Herbert, Household Equipment Editor, *McCall's* magazine, will be the guest speaker. Her address will have the title, "Finger on the Future."

Registration fee for the conference is $15.

For advance registration forms write promptly to: Home Service Chairman, Edison Electric Institute, New York 17, N. Y.

Electrical System and Equipment Committee Meeting

- *Furnishing Reliable Capacity for Peak Loads*
- *Operating Experience with an Electronic Sentry*
- *Supervisory Control and Associated Telemetering*

R. G. MEYERAND
Chairman

THE Electrical System and Equipment Committee held its 79th meeting at the Muehlebach Hotel in Kansas City, Mo., Oct. 5-6, with approximately 110 members and guests attending.

On Sunday afternoon the Kansas City Power and Light Co. conducted a tour of Kansas City and various electrical facilities.

Papers, Reports, Discussions

The program consisted of papers, reports, and discussions under the sponsorship of F. J. Berger, Chairman of the Subcommittee on System and Equipment Troubles; K. L. Wheeler, Chairman of the Subcommittee on Equipment and Station Design; V. J. Hayes, Chairman of the Subcommittee on System Engineering and Operation; R. M. Pennypacker, Chairman of the Subcommittee on Equipment and Station Operation and Maintenance; and A. P. Fugill, Chairman of the System Planning Subcommittee.

On Monday morning the closed session program of the Subcommittee on System and Equipment Troubles was presented. Various system disturbances and apparatus failures were informally discussed by the committee and guests.

On Monday afternoon in closed session the System Planning Subcommittee presented a symposium on the planning and economics of furnishing reliable generating capacity for peak loads. T. W. Schroeder, Vice Chairman of the System Planning Subcommittee, described the broad aspects of the problem. Warren Greten described the experience of The Connecticut Light and Power Co. with use of gas turbines for peaking applications. R. M. Pennypacker told the committee that Philadelphia Electric Co. had installed some General Motors Co. diesel engine driver generator sets of the package type and was collecting operating experience.

Because of lack of available time the round table discussion was omitted and the questions will be discussed at the February meeting.

On Tuesday morning, under jurisdiction of the Subcommittee on System Engineering and Operation, H. A. McLaughlin sponsored a paper, "The Economic Combination of Generating Units for Weekend Load Cycles," which was presented by W. S. Schmidt of the Monongahela Power Co. Mr. Schmidt pointed out that the decision to remove or add generators for economic operation should be based on the over-all system operating costs and not on the incremental costs of the generating units being considered. It is found that changes in the pattern of the load cycle will in many cases alter the priorities of the individual units. Therefore, with each change in system peak load, either because of shifts in major loads or on account of seasonal influences, a new priority list should be compiled. Furthermore, if a base load unit is removed for maintenance, or if its capacity is materially reduced because of auxiliary trouble, such loss of generating capacity will also require changes in the priority lists. The large number of calculations to determine units to be used, required with rapidly changing system operating conditions, makes use of a high-speed computer necessary. In reviewing economic loading principles, Mr. Schmidt said that the problem deals with total operating expenses rather than incremental costs; he pointed out that incremental costs are not the basis of adding units, but are used to divide the load economically among the units that are running.

The second paper in the program of the Subcommittee on System Engineering and Operation was prepared by W. C. Baylis, and presented by O. K. Brown. The operating experience of the Niagara Mohawk Power Corp. with the electronic sentry was reviewed and the device demonstrated. The electronic sentry is the first commercial equipment offered to the public for connection to an ordinary dial telephone central office line so that the line can be used on an alternate basis for alarm purposes or making regular telephone calls. A voice recording is used to identify the unattended point in lieu of the previous coded tone method. The electronic sentry may be leased on General Telephone Co. facilities and is on test in a limited area by the Bell System.

750 Test Calls

Mr. Brown said that during a 17-month trial period 750 test calls were made and four actual alarms occurred; there were two failures on the equipment, one on test and one on actual alarm.

The final paper on the program of the Subcommittee on System Engineering and Operation was sponsored by K. N. Reardon and presented by R. L. Phillips. This paper gave a summary of the operation of the General Electric Co. load control at Kansas City. Mr. Phillips said that the General Electric load dispatching system, during its four years of operation on the Kansas City system, has proven to be versatile and reliable, and has demonstrated its ability to perform a rapid and accurate regulating function; in addition, it has also proven its excellence in loading the system incrementally within a given set of predetermined limitations. System complexities and limitations preclude the attainment of maximum operating economy. However, an analysis of the new and old control system showed that the new system resulted in sufficient reduction in total fuel to more than offset the carrying charges on the entire installation.

The first portion of the program of the Subcommittee on Equipment and Station Design consisted of a panel-type discussion on the subject

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Transmission & Distribution Committee Meeting

- *Recording Troubles with a Punch-Card System*
- *Proposed Plans of Research Activities Task Force*
- *Union Electric's Underground Inspection Program*

H. E. CODY
Chairman

THE fall meeting of the Transmission and Distribution Committee was held on Oct. 1-2, at the Rice Hotel, Houston, Texas.

Karl K. Kreamer, Assistant to Operations Vice President, Houston Lighting & Power Co., welcomed the 150 members and guests to Houston and discussed the problems in keeping transmission and distribution systems adequate for the rapidly increasing loads of recent years. He foresaw the greatest challenge to be the design of future distribution systems capable of delivering 10,000 to 15,000 kilowatt-hours per year to residential customers.

Overhead

R. Hicock, Chairman of the Overhead Subcommittee, sponsored a session featuring description of machine methods of recording and analyzing distribution system performance.

M. R. Mosquini outlined the system of machine cataloguing of interruptions recently adopted by the Southern California Edison Co. to facilitate more detailed evaluation and better control of the quality of service among operating districts which vary greatly in weather conditions and load concentration.

H. R. McNutt, Jr., gave details of the punch card scheme used by the West Penn Power Co. to record all troubles and analyze performance. It features use of a check-off card on which the lineman can denote all details associated with the trouble and which then becomes the punch card without transcription of any written material. A year's experience with the scheme already has shown its value in pin-pointing items for improvement.

H. L. Williams described the mechanized method of assessing performance used by The Cleveland Electric Illuminating Co. A complete year's experience with this method has shown that it not only provides a superior means of evaluating various components of the system but also aids in more accurately determining effectiveness of specific innovations in design and maintenance.

C. E. Calvert discussed problems encountered by the Gulf States Utilities Co. in installing 1,033-mcm all-aluminum conductor on a 138-kv line. Despite prestressing the conductor to 7300 lb. and snubbing it off for 30 minutes, subsequent creep caused the final sag in 600-ft. spans to increase about two feet in a few months. Maintaining the prestressing tension at 7300 lb. for the entire 30 minutes reduced subsequent creep but it still was necessary to make allowance for the creep which continues in diminishing degree for several years.

D. F. Tulloch reported that the storm tracking procedure developed by the Task Force on Mutual Assistance Coordination Between Utilities performed successfully when Hurricane Gracie struck the South Carolina coast on Sept. 29.

D. V. Ward of John A. Roebling's Sons presented a film showing short-circuit tests on spacer cables. The tests showed that the short-circuit limitation of the small sizes is in the thermal capacity of the insulation while that of the large sizes is in the strength of the spacer clamps.

General Engineering

C. E. Bathe, Chairman of the General Engineering Subcommittee, sponsored a session covering a variety of subjects.

Reports from J. W. Anderson summarized results of a questionnaire to members concerning proposed revision of AEIC-EEI-NEMA motor starting current rules and the results of discussion of these rules by the ARI-EEI-NEMA Joint Committee on Air Conditioning and Refrigerating Equipment. Although the proposed revision is favored by a majority of T&D Committee members, further action will be deferred pending additional consideration of the proposals by the Air Conditioning and Refrigeration Institute.

T. C. Duncan reported that the majority of members commenting on the preliminary report of the EEI-NEMA Joint Committee on Higher Secondary and Utilization Voltages favor the recommendations outlined in the report. Further action will await completion of consideration of the report by NEMA.

D. Burns reported that the Research Activities Task Force has initiated recommendations for proposed EEI research projects on galloping conductors and epoxy resin cable splices and terminations. The Task Force will continue its review of transmission and distribution problems to determine those on which further research appears desirable.

M. C. Westrate reviewed current activities of the System Planning Subcommittee of the Electrical System and Equipment Committee.

T. C. Duncan gave details concerning the Aug. 17 shutdown of the Central Park Network in New York City.

H. Lawyer described how the Oklahoma Gas and Electric Co. uses kilowatt-hour data to determine loading of distribution system components. The method is to be extended to all classes of customers by next summer. It is readily adaptable to machine data processing methods which greatly increase its usefulness.

G. P. Rhoten told how the Texas Electric Service Co. is using a digital computer to solve a wide variety of distribution system problems. The first program developed to establish and maintain satisfactory phase balance throughout the system has been followed by others to calculate feeder voltage drop, line losses and fault currents, conduct transformer load studies and analyze faults and interruptions.

Underground

The opening session on the second day of the meeting was sponsored by

D. F. Tulloch, Chairman of the Underground Subcommittee.

H. L. Davis, Jr., announced that the 1957 Cable Operation Report has been released for printing. Data from the major users of paper and lead ductlay cable above 7.5 kv show a trouble rate of 7.6 per 100 cable miles in 1957 as compared with 8.1 in 1956. Mechanical damage and corrosion again accounted for most of the troubles, 45 and 24 percent, respectively.

L. L. Rayment described the time-consuming procedures used to locate and repair damage to one of four Cape and Vineyard Electric Co. 25-kv submarine cables at an 83-ft. depth in a four-mile crossing from Martha's Vineyard to the mainland. The desirability of further inspection led to the use of a Scuba diver to survey the entire crossing. The success and speed of this survey has indicated the advantages of using Scuba divers for future fault location.

C. E. Monfort, Jr., outlined a program for routine inspection of cables and joints inaugurated last year by the Union Electric Co. The program, geared to cover all 4000 manholes of the underground system every 18 months, has produced impressive savings to date.

A report from C. W. Smith, Jr., described silicon rectified installations used by the Boston Edison Co. to eliminate rotating equipment in small d.c. load areas. Installations at 12 locations supply a load of about 1600 kv. Operation to date has been very satisfactory and savings are substantial.

H. L. Davis, Jr., discussed Philadelphia Electric Co. experience with the use of radiography to examine pipe welds on pipe-type cable installations. Both X-rays and gamma rays from Iridium 192 are used for different applications. No defects have developed in 2500 welds tested by this method during the past three years.

D. F. Tulloch announced formation of three task forces to study various aspects of buried distribution systems.

Standards and Specifications

H. G. Hally, Chairman of the Standards and Specifications Subcommittee, called on task force chairmen for progress reports of their activities.

C. E. Topping reported that the EEI-NEMA Joint Committee on Pole Line Hardware has about completed proposed revisions of specifications for spool type secondary racks and steel clevises for guy strain insulators. Work on a number of other new and revised specifications is progressing satisfactorily.

A report from R. C. Daffron indicated that a revision of EEI-NEMA standards for mounting brackets for distribution cutouts, and lightning arresters is ready to be submitted to members for ballot.

W. H. Johnson announced that the proposed report on methods of inspection of standing poles in overhead lines has received a favorable letter ballot. Another proposed report on recommended practices on re-use of poles soon will be submitted to members for ballot. The Timber Products Task Force also is preparing a proposed revision of TD-90, "Specifications for Douglas Fir Crossarms, Treated or Untreated."

V. H. Minkner reported that the EEI-NEMA Joint Committee on Standardization of Street Lighting Equipment is nearing completion of a proposed revision of the existing standards for street lighting poles and a proposed new standard on light-sensitive control devices.

H. G. Hally announced that a new EEI-IPCEA joint committee is being organized to study standardization of aluminum service drop cable.

Safety

The closing session was sponsored by H. W. Dannettell, Jr., Chairman of the Safety Subcommittee.

C. Crockett presented a movie showing how the Louisiana Power & Light Co. is using hydraulically operated aerial fiber glass buckets to perform live line work on a 14,400/24,900Y volt system. Work efficiency gained by the freedom of action permitted by this insulated platform was reported to pay for the equipment in one year.

C. P. Shirey, Gulf States Utilities Co., emphasized the need for specific training to maintain safety in electric line work. He recommended that such training be about equally divided between field and classroom with groups of from 8 to 12 and that instructors be specialists with teaching ability and specific job knowledge.

The remainder of the meeting was devoted to general discussion of members' specific problems.

Electrical System and Equipment Committee Meeting

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of recruiting and training engineers. R. P. Crippen acted as sponsor and moderator with J. H. Vivian, W. B. Fisk, K. L. Wheeler, E. G. Huck and R. G. Meyerand as the panel. Methods used by various companies for recruiting and training graduate engineers were discussed.

C. A. Sloan of Kansas City Power and Light Co. presented a paper describing the 161/13.2-kv substation design developed by his company and inspected by the committee on Sunday. This paper was sponsored by J. Q. Wray as part of the program of the Subcommittee on Equipment and Station Design. One design innovation was the use of three-inch structural aluminum channels for wire guides over a switch rack provided for future switch installation.

The program of the Subcommittee on Equipment and Station Operation and Maintenance, under the sponsorship of J. W. Asmann, consisted of three associated papers on the subject of maintenance practices and experience with supervisory control and associated telemetering. Papers were presented by P. W. Kiesling of Public Service Co. of Colorado, N. C. Storck of Wisconsin Electric Power Co., and W. J. Soeurt of Indianapolis Power and Light Co. Mr. Soeurt said that maintenance could be classified into two broad divisions: namely, preventive and curative. The goal is to achieve the maximum freedom from curative maintenance with the minimum of preventive maintenance. He said his company relies to a great extent on past records, past experience, and maintenance personnel's knowledge of the idiosyncrasies of various pieces of equipment to keep preventive maintenance to an absolute minimum consistent with good operation.

Insurance Committee Meeting

- *Review of Nuclear Insurance Field*
- *Practices in Travel Accident Insurance*
- *Report on Fire and Allied Lines*

R. R. MACKAY, JR.
Chairman

THE Insurance Committee held its annual fall meeting at the Hotel Somerset, Boston, Mass., on Oct. 15 and 16, with 37 members and guests attending.

A. G. Jillette, Chairman of the Subcommittee on Nuclear Projects, presented a comprehensive report bringing the committee up to date on events which have taken place in the field of nuclear insurance during the past six months. An interesting feature of the report was a review of the nuclear exposure arising out of the use of radioactive isotopes and an explanation that this exposure can be insured by attaching an assumption of risk endorsement to conventional fire policies.

C. R. Garton, Chairman of the Subcommittee on Fire Protection, reported on the activity of this group and advised that a report entitled "Fire Protection and Prevention for Hydrogen Systems for Generator Cooling" should be completed and ready for release within the next six months. He also reported on progress being made in several other phases of electric utility property protection which had been assigned to the subcommittee for study.

R. H. Brandow, Chairman of the Subcommittee on Boiler and Machinery, summarized the results of a joint meeting with the corresponding AGA subcommittee and representatives of the National Bureau of Casualty Underwriters which was devoted to questions pertaining to boiler and machinery policy forms and ratings.

A. L. Benjamin, Chairman of the Subcommittee on Industry Practices, discussed general practices in the field of travel accident insurance and further advised that the subcommittee was continuing with similar studies pertaining to other insurances.

M. C. Peterson, Chairman of the Subcommittee on Excess Liability, reported that at least one American insurance company had increased its amount of retention on any one risk from $1 million to $2 million. It was decided that this subcommittee be renamed the Subcommittee on Liability and be instructed hereafter to deal within the entire scope of liability matters rather than restrict itself to excess coverage only.

R. D. Constable, Chairman of the Subcommittee on Employee Benefits, discussed and summarized recent trends and developments in the group insurance field.

W. O. Randlett, Chairman of the Subcommittee on Fire and Allied Lines, reported on matters of general interest in the fire insurance field. He further advised that the subcommittee contemplated a meeting in the near future with the Inter-Regional Insurance Conference to discuss specifically development of broadened electrical apparatus and explosion clauses and a general review of the present electric generating station rating schedule to develop further rate credits. This subcommittee also intends to continue discussions with the Inter-Regional Insurance Conference on the matter of deductible fire insurance.

Loss, Loss Adjustments

Following presentation of subcommittee reports, the meeting concluded with general discussions of individual company experiences in the areas of loss and loss adjustments.

The next meeting of the Committee will be held April 27-29, in Pascagoula, Miss.

Accident Prevention Committee Meeting

- *Mouth-to-Mouth Resuscitation*
- *Portable, Self-Contained Defibrillator*
- *Rubber Gloves Won't Kill*

A. J. NAQUIN
Chairman

THE 68th meeting of the Accident Prevention Committee was held at the Dennis Hotel in Atlantic City, N. J., Nov. 9-11. In introducing the general theme for the meeting, "To Do a Better Safety Job—Let's Listen for Accidents," the Chairman emphasized that by listening to the subcommittee reports and by discussions among the members each could take from the meeting those truths and ideas which can be applied to prevent injuries.

In his address of welcome, Charles M. Hagan, President, Atlantic City Electric Co., compared the old days of "rainy-day" safety with the programs of today which make safety a part of every job. He gave credit to the committee members and other utility safety people for making this change possible.

The need for continued emphasis to control the electric shock and burn problem was indicated by Stanley Young, Vice Chairman of the committee, as evidenced by the reports of fatal electric shock and burn injuries which have been received so far for 1959.

The committee, which had previously endorsed the mouth-to-mouth method of resuscitation, specifically endorsed the use of this method for pole-top resuscitation. E. S. Licht showed a film made by the New York State Electric and Gas Corp. in which

a mouth-to-mouth method of pole-top resuscitation was demonstrated.

A portable, self-contained defibrillator under development by Mine Safety Appliances was shown to the group by W. C. Bremner. This device could make it possible in the field to restore the normal beating of the heart of one who has suffered an electric shock which destroyed the normal rhythm.

Dr. W. B. Kouwenhoven and Guy Knickerbocker of Johns Hopkins University discussed the closed-chest method of maintaining some blood circulation while the heart is in fibrillation. It was pointed out that permanent brain damage can result if it is deprived of oxygenated blood for periods of more than two or three minutes. The closed-chest method, plus lung ventilation, could maintain sufficient circulation to prevent damage for possibly 20 minutes, giving time enough to apply electric countershock defibrillation.

Charles Coutts discussed the job of his Protective Equipment Subcommittee in connection with the electric shock and burn problem. His analysis indicated that the problem of fatal injuries from electric shock and burn accidents is even more serious in our industry than is the problem of fatal motor vehicle accidents among all drivers in the United States. He pointed out that the injuries which do occur are due to misuse or non-use of protective safety equipment which is available. There is no record in our industry of a fatal or serious injury due to rubber glove failure.

W. C. Bremner announced that there would be made available a new sticker on page five of the Resuscitation Manual so that the committee's endorsement of the mouth-to-mouth method of resuscitation will be emphasized in the manuals already distributed. Future printings of the manual will be revised.

Dr. Earle S. Hannaford of the American Telephone and Telegraph Co. in his address, "Listening for Accidents," said that accidents are a disease, the symptom for which is attitude. Studies which he has made showed that as the attitude worsens, the number of repeat accidents for an individual increases. His studies also indicated that as the supervisory attitude worsens the number of injuries to workmen under his direction increases. Dr. Hannaford listed the symptom for both the workman and the supervisor and pointed out certain "listen" points to be observed. The importance of the authority figure (supervisors-leaders) was emphasized in the study made by Dr. Hannaford.

In his luncheon address, B. L. England, Chairman, Board of Directors, Atlantic City Electric Co., emphasized that all of us have a responsibility for international safety.

H. B. McMahan announced that the 1960 monthly safety packages will be directed to the electric shock and burn problem and will be available for purchase in the near future.

The Visual Aids Subcommittee, under the direction of J. W. Gronbeck, pointed out the various films which are available to assist in control of the electric shock and burn problem. "Pole Top Pals," which illustrates the proper use and care of rubber protective equipment, was shown. The subcommittee is now at work on the production of another film, "What Is an Electric Shock?"

The committee endorsed a plan for a new Frequency Rate Safety Award. This award would be given annually to the company having the lowest frequency rate in its group size.

J. C. Bruckmann and A. M. Steele of Long Island Lighting Co. told how their company is securing the assistance of each employee in a program to prevent line contacts by crane contractors.

100 Power Companies Join Christmas Promotion

NEARLY 100 electric light and power companies are participating in the Christmas Give Better Electrically promotion this year, Ralph Zeuthen, Manager of the EEI Live Better Electrically Program, has announced.

The promotion represents the electrical industry's second annual Christmas gift merchandising event which was spearheaded by a multi-page "Give Better Electrically" advertacular in the Nov. 21 issue of *Saturday Evening Post* magazine. Products of 20 electrical manufacturers were displayed in a dutch-door section, the top half of which invited the public to "Give Better Electrically."

At the height of the Christmas buying season, following the *Post* ad, "The Price Is Right" featured all 23 electrical appliances to be given as bonus prizes to winners on both day and night-time shows. These appeared on the evening show Dec. 2 and were seen on the daytime show Dec. 10. An estimated 9 million viewers over 133 NBC stations tuned in on the day show and an estimated 40 million viewers over 143 stations saw the evening program.

Strong editorial support was given the Give Better Electrically promotion in a special newspaper supplement sent to utilities and industry allies.

Coordinated nationally by the Live Better Electrically Program and EEI, the merchandising activity is designed to spark gift promotions by electric utilities, distributors and retailers.

Point-of-purchase materials provided by EEI for local campaigns include a three-dimensional tree display, a large banner, and miniature easel-backed cardboard Santas. Repro art of the *Post* ad's top illustration has also been made available for local use.

EEI is featuring the Give Better Electrically theme in its network TV shows and in trade press advertising to support the over-all merchandising effort. Two 60-second TV spot commercials are available to member companies, along with gift booklets, which are copies of the advertacular appearing in Nov. 21 *Post*. Half a million copies of this booklet are expected to be distributed by utility company members through dealers.

Consumer readership will approximate 30 million as a result of the advertacular and the promotional booklets.

The October issue of *Electrical Merchandising* carried a full-color preprint of the advertacular, sponsored by *Saturday Evening Post* and EEI. Trade ads also were run by EEI in *Mart* and *Home Furnishings Daily* during October and November.

People in Power

J. HARRIS WARD has been elected President of Commonwealth Edison Co., succeeding JOHN W. EVERS, who retired Oct. 31. Mr. Ward had been Executive Vice President of the company since 1955.

Mr. Ward came to Commonwealth Edison in 1938 as an investment analyst. He was elected secretary of the company in 1948, vice president in 1951, vice president and treasurer in 1952 and executive vice president in 1955. He has been a director since 1957.

Under the utility's executive rotation policy, Mr. Ward has served as financial vice president, vice president in charge of commercial activities and also has been in charge of operating, engineering and construction activities.

Mr. Ward is a director of International Harvester Co., The Northern Trust Co. and a trustee of the University of Chicago. He has been active in civic and welfare activities and is the current president of the Community Fund of Chicago. He is a graduate of Harvard University with a master's degree in business administration. Before joining Edison he worked for the National Recovery Administration in Washington and Brown Bros. Harriman & Co. in New York City.

During World War II Mr. Ward served in various capacities with the War Production Board and subsequently with the Army in Europe with the Strategic Bombing Survey.

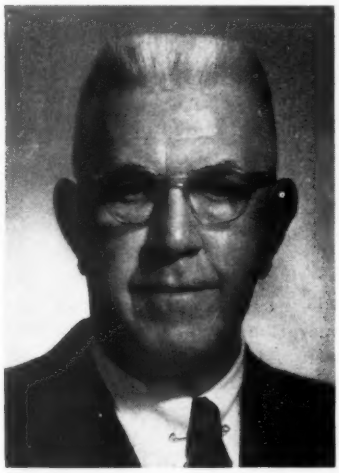
Mr. Evers' retirement follows 46 years of service with the utility he joined as a clerk in 1913. He was elected assistant treasurer in 1922 and progressed through various positions to executive vice president in 1951 and president in 1953. He has served as a member of the EEI Board of Directors.

Mr. Evers will continue to serve as a director of Commonwealth Edison. He is also a director of Jewel Tea Co., Insurance Exchange Building Corp., Seaboard Finance Co. and the National Boulevard Bank of Chicago.

Mr. Evers has been active in Chicago civic and charitable affairs for many years. He is a director of the Rehabilitation Institute of Chicago and has been, and plans to continue to be, very active in its program. He is also a trustee of the Community Fund-Red Cross Joint Appeal of Chicago, a director of the Hospital Planning Council for Metropolitan Chicago and a member of the Metropolitan Fair and Exposition Authority Board of Chicago.

J. HARRIS WARD

J. H. CLAWSON



FRANK MCLAUGHLIN

J. H. CLAWSON, Executive Vice President of Puget Sound Power & Light Co., has been elected President of the company, succeeding FRANK MCLAUGHLIN who has been promoted to Chairman of the Board and made top managing officer in charge of policies, business and affairs.

Mr. Clawson joined the utility in 1933 as an auditor, after 11 years in that capacity with Stone & Webster. In 1936 he became assistant treasurer and in 1948 was promoted to controller. The following year he was named treasurer and was elected vice president in 1958.

Mr. McLaughlin has served as President and a director of Puget Sound Power & Light since 1931. Before joining the Seattle utility, he was associated with Stone & Webster, El Paso Electric Co., Baton Rouge Electric Co. and Virginia Electric and Power Co. Mr. McLaughlin was a captain in the Air Service of the U.S. Army from 1917-1919. He has been active in many civic, educational, charitable, athletic and business organizations in Seattle.

MARSHALL M. KOCH, Executive Vice President and a director of Public Service Co. of Colorado, has retired after 45 years of company service.

For the past 12 years, Mr. Koch was chief executive of the utility's electric operations and has served as a member of the company's board of directors since 1948. Under his leadership the electric operations of the company have experienced the greatest growth in the company's history.

A graduate of Cornell University,

Mr. Koch received his master's degree in mechanical engineering, and while attending college he worked for the Eastern Pennsylvania Railway, Light, Heat and Power Co. After entering employment with Public Service Co. in 1914 as a junior engineer, he served in numerous supervisory and executive responsibilities in the Electric Department. He was elected a vice president in 1947 and advanced to executive vice president in 1958.

HAROLD E. NORMAN, Vice President and Treasurer of Black Hills Power and Light Co., has been promoted to Senior Vice President and Treasurer. Mr. Norman has been with BHP&L and its predecessors since 1921. He is a 1920 graduate of Creighton University. He began his employment in the company's accounting department, served as local manager at Deadwood and was company auditor. He was made treasurer in 1954 and a vice president in 1957.

D. S. BAILEY, Manager of Division Operations, Idaho Power Co., has been elected Vice President of the company. He will coordinate the activities of Idaho Power's four divisions.

Mr. Bailey joined the company as an apprentice engineer in 1929 after being graduated from the University of Idaho with an electrical engineering degree. He was a division assistant sales manager and sales manager at Twin Falls before becoming Southern Division manager in 1954. He came to the company's general office in September of this year.

West Penn Power Co. has been honored by a resolution passed by the Pennsylvania State House of Representatives commending the utility "for the faith they have shown in the ever-growing economy of our state and for the efforts they have made toward making our Commonwealth a better place in which to live and work."

Copies of the resolution were presented to S. L. DRUMM, President of West Penn, by W. STUART HELM and W. MACK GUTHRIE, Armstrong County representatives in the State Legislature.

The resolution, which was unanimously adopted by the House, calls attention to the recent dedication of the utility's new Armstrong Power Station.

"The company spent 49 million dollars in the erection of this giant facility. . . . The expenditure of such a large sum of money by a private utility certainly evidences the faith that the company has in the growth of our Nation and our State," the resolution pointed out.

R. G. RINCLIFFE, President of Philadelphia Electric Co., has been elected President of the Association of Edison Illuminating Companies.

Mr. Rincliffe, who had been serving as vice president of the Association, was elevated to the top post during the 75th annual meeting of the organization at Boca Raton, Fla.

The Association of Edison Illuminating Companies, one of the oldest electrical associations in the world, is composed of executives of electric utilities which were originally licensed under Thomas A. Edison patents. The object of the association is the advancement of electric service to the public for light, heat, and power.

Mr. Rincliffe has been President of Philadelphia Electric since 1952.

Philip A. Fleger, center, Chairman of the Board and President of Duquesne Light Co., receives 1959 Western Pennsylvania Industrialist Award presented by the Pittsburgh Chapter, Society of Industrial Realtors. W. B. McFall, right, President, Commonwealth Trust Co., made the presentation. At left is W. J. McNeil, President of the Pittsburgh Chapter of the realtors' organization. The award was presented in October.

Rules Simplified in Awards Contest

EEI, through its awards Committee, has announced entry rules for the annual EEI Sales Promotion Awards contests.

The awards are offered in recognition of outstanding sales promotion programs during the past year.

There are three awards for each of the four markets — Residential, Farm, Commercial and Industrial. In each of these categories there are three classes, based on number of meters served.

These and other entry terms and conditions are set forth in four folders—one for each market—already mailed to EEI member companies.

This year entry rules have been simplified and condensed for easy study and application.

One outstanding change in the rules governing the competition for the 1959 awards allows 1959 entries to be based on individual phases of a company's over-all sales program in any of the four markets. In previous years it was required that an entry cover an over-all market.

EDISON ELECTRIC INSTITUTE OFFICERS AND COMMITTEES

OFFICERS

ALLEN S. KING, *President*.....Northern States Power Co., Minneapolis, Minn.
SHERMAN R. KNAPP, *Vice President*.....The Connecticut Light & Power Co., Berlin, Conn.
EDWIN VENNARD, *Vice President and Managing Director*.....750 Third Ave., New York, N. Y.
H. S. SUTTON, *Treasurer*.....Consolidated Edison Co. of New York, Inc., New York, N. Y.
A. B. MORGAN, *Secretary and Assistant Managing Director*.....750 Third Ave., New York, N. Y.

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(Terms expiring 1960)

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J. F. DAVENPORT, Southern California Edison Co.
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G. S. DINWIDDIE, New Orleans Public Service Inc.
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A. R. SCHILLER, Public Service Co. of New Hampshire
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J. T. WOLFE, Baltimore Gas and Electric Co.

(Terms expiring 1961)

J. K. BUSBY, Pennsylvania Power & Light Co.
D. C. COOK, American Electric Power Co., Inc.
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C. E. EBLE, Consolidated Edison Co. of New York, Inc.
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E. D. SHERWIN, San Diego Gas & Electric Co.
N. R. SUTHERLAND, Pacific Gas and Electric Co.
L. V. SUTTON, Carolina Power & Light Co.
W. F. TAIT, JR., Public Service Electric and Gas Co.
WILLIAM WEBSTER, New England Electric System
C. H. WHITMORE, Iowa-Illinois Gas and Electric Co.

(Terms expiring 1962)

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